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ABSTRACT

The primary purpose of the study was an initial attempt to identify the basic social skills which are pertinent to the general occupational categories of (1) trade and industrial, (2) technical occupations, (3) health occupations, (4) marketing and distribution, and (5) business and office. A secondary purpose was to compare the identification of social skills and the ranking of the importance of these social skills as related to job performance. Data were gathered from postsecondary instructors and industrial personnel within selected industrial settings utilizing a social skills inventory scale and interview techniques. Seven postsecondary complexes were selected to present the institutional input. In addition, industrial personnel representing the five basic occupational categories were selected for participation in the study. A major finding was that various degrees of social skill competence are of vital importance to the levels of performance within all basic occupational categories. The survey instrument is appended. (Author/VA)

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THE IDENTIFICATION OF SOCIAL SKILLS NEEDED IN SPECIFIC VOCATIONAL AND TECHNICAL AREAS AND POSSIBLE INSTRUCTIONAL APPROACHES APPLICABLE TO SUCH NEEDS

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ABSTRACT

THE IDENTIFICATION OF SOCIAL SKILLS NEEDED
IN SPECIFIC VOCATIONAL AND TECHNICAL AREAS
AND POSSIBLE INSTRUCTIONAL APPROACHES APPLICABLE
TO SUCH NEEDS

Research concerning methods and techniques of preparing individuals to meet the needs of today's "working world" reflects the concern of vocational educators and industrial personnel for the readiness of the worker in social skills as well as readiness in job skills. Social skills as related to occupational categories are often discussed. Yet, in actuality, little social skill identification on a practical level has been attempted.

The primary purpose of this study was a "first step" attempt to identify basic social skills that were pertinent to the general occupational categories of (1) Trade and Industrial, (2) Technical Occupations, (3) Health Occupations, (4) Marketing and Distribution, and (5) Business and Office. A secondary purpose of the study was to compare the identification of social skills and the ranking of the importance of these social skills, as related to job performance, between the post secondary vocational-technical instructors and the personnel who are currently employed within these occupational categories in industrial settings.

The data were gathered from the post secondary instructors and industrial personnel within the selected industrial settings.

The methods of gathering data were by the utilization of a Social Skills Inventory Scale and by interview techniques with vocational-technical personnel and industrial personnel. Seven post secondary vocational complexes were selected to present the institutional input. Instructors within the selected vocational complexes were participants in the study. The industrial personnel representing the five basic occupational categories were selected according to size, geographical location, and type of industry.

Conclusions:

1. Skills other than task performance skills, within each occupational area, are considered social skills; such social skills can be categorized by employers and employees within the industrial setting and by instructors within the post secondary vocational complexes.

2. Various degrees of social skill competence are of vital importance to the levels of performance within all basic occupational categories.

3. Instructors, employers, and employees have a difference in opinion as to the importance of various social skills as related to job performance.

4. A strong consensus among all employees, employers, and instructors in all occupational areas is that the employable person is an individual that possesses a strong degree of self-discipline which includes punctuality, control of temper, and full completion of the work schedule.

5. Employers and instructors within the occupational areas agree unanimously that individuals must be able to take directions from the employer.

6. Human relation skills are a pertinent part of satisfactory job performance in the majority of the occupational areas.

7. Oral communication elements decrease in importance as related to job performance when individuals go into occupations that require manipulative skills.

Implications:

1. Students are often involved in segments of related courses and content area courses that have no direct relationship to the skills for which they are training.

2. In general, there is a fairly narrow margin of difference in the ratings of social skills by instructors and industrial personnel on a composite basis.

3. Some instructors within occupational areas have not utilized craft committees in the most advantageous manner.

Recommendations:

1. Courses taught in conjunction with the various occupational training areas should be reviewed carefully by a committee of craftsmen and teachers to specify specific areas of pertinent concern within each of the content areas.

2. A closer alignment of teachers and craftsmen within the various occupational areas would be advantageous.

3. Basic human relation skills should be an integrate segment of occupational training programs.

PREFACE

The study herein is a product of a research project that was sponsored by the Division of Vocational and Technical Education, Mississippi State Department of Education, and the University of Southern Mississippi.

The identification of various social skills pertinent to specific occupational categories has been discussed in various educational institutions and industrial settings. As a result of these discussions, a first step has been taken in the identifications of such social skills.

A proposal for this study was completed and submitted to the Mississippi State Department of Education, Division of Vocational and Technical Education, and was approved for continued research during the 1973-74 fiscal year. A complete report of this research project is available in the Department of Research and Human Development, University of Southern Mississippi.

A basic premise to be kept in mind while reading the study is that form and style may deviate to some degree from the basic research format. The sacrificing of basic format elements was done in order that readability factor could be enhanced.

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CHAPTER I

INTRODUCTION

Research concerning methods and techniques of preparing individuals to meet the needs of today's "working world" reflects the concern of vocational educators and industrial personnel for the readiness of the worker in social skills as well as readiness in job skills. Social skills as related to occupational categories are often discussed. Yet, in actuality, little social skill identification on a practical level has been attempted.

Statement of the Problem and Purpose

The primary purpose of this study was a "first step" attempt to identify basic social skills that were pertinent to the general occupational categories of (1) Trade and Industrial, (2) Technical Occupations, (3) Health Occupations, (4) Marketing and Distribution, and (5) Business and Office. A secondary purpose of the study was to compare the identification of social skills and the ranking of importance of these social skills between the post secondary vocational-technical instructors and the personnel who are currently employed within these occupational categories in industrial settings.

Limitations of the Study

The study was limited to seven selected post secondary vocational-technical centers in the state of Mississippi. The seven centers were selected on a geographical basis, with program offerings considered; industrial personnel was selected on a basis of occupational category representation and by geographical location.

Procedure

The data was gathered from the following sources:

(1) Post secondary instructors within specific skill areas.

(2) Industrial personnel within the selected industrial settings.

The methods of gathering data were by utilization of a Social Skills Inventory Scale (Appendix A) and by interview techniques with vocational and industrial personnel. Seven post secondary vocational complexes were selected to represent institutional input. Instructors within the selected vocational complexes were participants in the study.

The industrial personnel representing the five basic occupation categories: Trade and Industrial, Technical Occupations, Business and Office, Marketing and Distribution, and Health Occupations, were selected according to size, geographical location, and type of industry.

The activity sequence was as follows:

(1) Selecting post secondary vocational complexes.

(2) Selecting industries according to size, geographical location, and type of industry.

(3) Arrange for introductory meeting between institution and industrial personnel.

(4) Use input from industrial personnel meetings and post secondary vocational instructors to finalize Social Skills Inventory Scale.

(5) Administer Social Skills Inventory Scale to the faculties of post secondary vocational complexes.

(6) Administer Social Skills Inventory Scale to selected industrial personnel.

(7) Process data.

For the purpose of analyzation, the occupational areas were divided into the categorical areas of: Trade and Industrial, Technical Occupations, Health Occupations, Business and Office, and Marketing and Distribution. Some emphasis was given to some of the more prevalent programs within each category.

Utilization of Instrument

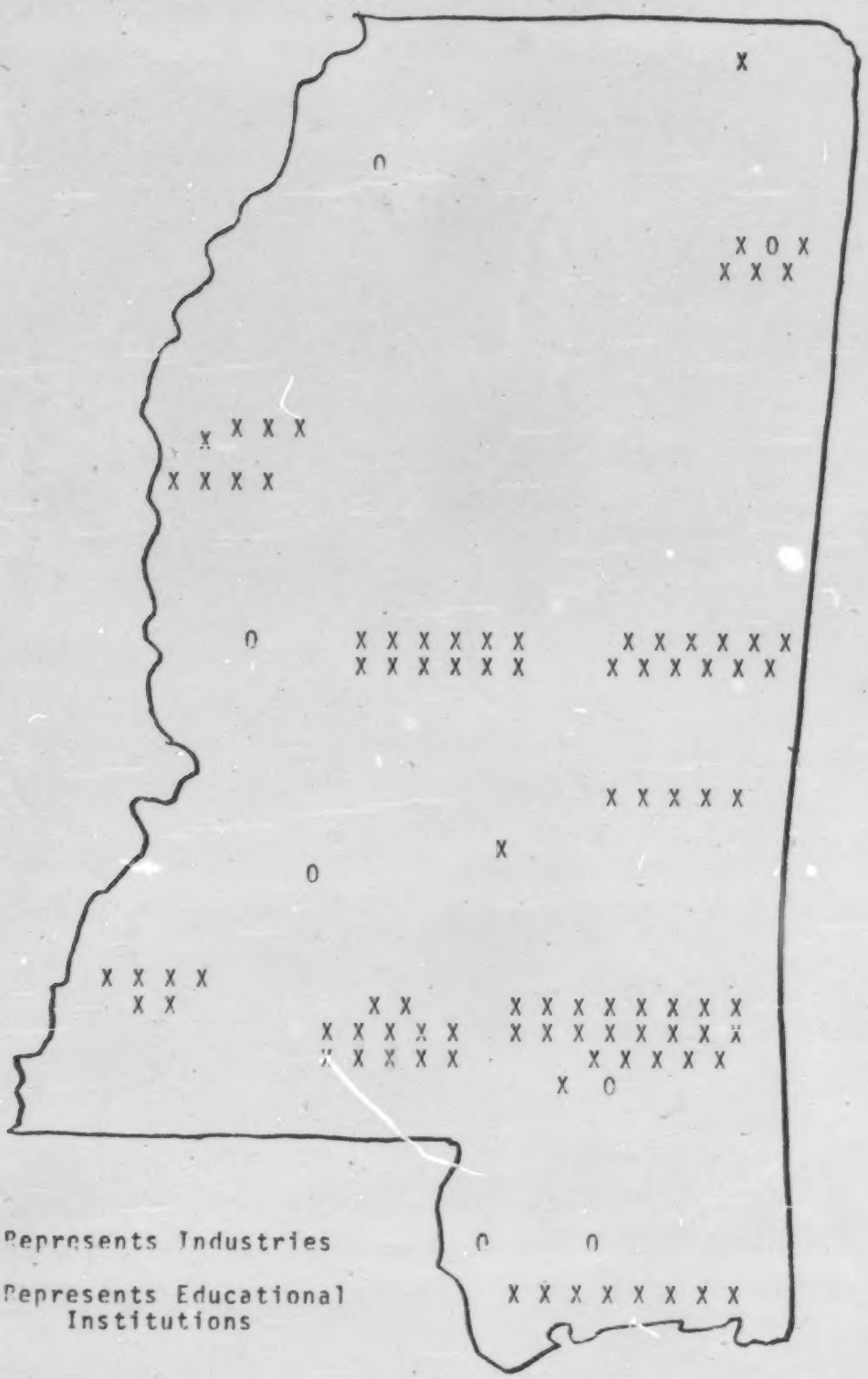
The Social Skills Inventory Scale (SSIS) was developed by utilizing basic input from industrial personnel and instructors within post secondary and secondary vocational complexes. After the instrument was developed, basic "trial runs" were completed in industry and vocational-technical centers to establish reliability and validity. An item analysis was completed after the "trial run."

In view of instrument content, the social skills were categorized into three general areas: (1) personal

characteristics, (2) social skills in content area, and (3) social skills in human relations.

The number of respondents represented in each segment of the study is given in Appendix B.

FIGURE I



LOCATION MAP

CHAPTER II

IDENTIFICATION OF SOCIAL SKILLS

The developing of the Social Skills Inventory Scale (SSIS) was a focal point in this study. In determining a list of social skills that was broad enough and yet pertinent to each of the five broad occupational areas: trade and industrial, technical, marketing and distribution, business and office, and health occupations, input, in survey form, from industries and post secondary vocational complexes, was sought. The data were then compiled into the (SSIS) and further use was made of the instrument, as shown in the following chapters. When we speak of social skills, we are referring to skills necessary to interact within an occupational framework. This is why many basic academic fundamentals are included as social skills.

After securing various opinions, in interview and written response forms, from individuals in vocational education and industry, it was basically determined that social skills covered directly or indirectly a broad spectrum. For the purpose of analyzation the social skills were categorized into three basic areas: social skills as related to personal characteristics, social skills as related core content areas, and social skills as related human relations, as shown in

Appendix A. Each skill was rated on a scale of 1-5, with 5 representing the highest rating and 1, the lowest rating.

Six basic social skills were classified within the personal characteristic category. The respondents believed these social skills to be pertinent and could be justified as a direct or indirect segment of a vocational education curriculum. First, creativity, is a basic element, from one degree to another, that relates to occupational success. Creativity is regarded as a social skill in that such a personal characteristic may, within a social context, determine the basic effectiveness of an employee in performing a job task. Creativity, if viewed as a determiner in occupational success, can be determined to some extent before an individual enters an occupational training program. Second, within the personal characteristic category, was job related independence. This basic social skill determines to what extent independence in "on the job task" relates to the success of occupational performance within the basic occupational categories. Another social skill within the personal characteristic category was adaptability. Adaptability refers to the ability of the person, when direct or indirect changes flow into the occupational setting, to change in order to cope with the situation and still maintain the on-going productiveness. Intraception was perceived by industrialist and post secondary instructors

as being another social skill within the personal characteristic category. Dress or daily attire as a personal characteristic was noted as being important in many of the occupational categories. The area of self-discipline was categorized into three sub-areas. Self-discipline, in a general connotation, was viewed by instructors and industrialists as being a most important social skill. The three sub-categories of self-discipline were as follows: punctuality, control of temper, and completion of work schedule.

The second major category of social skills is social skills in the content areas. Four sub-categories of social skills were deemed important by industrialist and teachers: writing, reading, speaking, and mathematical skills. The writing skills were segmented into ten different sub-skills, "as must be able to write": (a) letter, (b) work order, (c) report of incident, (d) trade articles, (e) written directions, (f) specifications, (g) bill of laiding, (h) daily log, (i) invoice, and (j) job tickets. The second area of content skills that was considered important was reading skills. The segmented reading skills were applicable to, "must be able to read": (a) signs and labels, (b) posted directions, (c) memos and directions, (d) work orders with detail, (e) trade articles, (f) analysis of technical material, and (g) manuals and letters. Speaking

skills were considered a basic element within the content social skills category. After surveying personnel in industry and educational institutions, ten basic speaking skill components were recognized as being substantively important: (a) informal conversation with colleague, (b) informal conversation with colleague and employer, (c) informal conversation with colleague, employer, and client, (d) formalized conversation with employer and client, (e) telephone conversation within the organization, (f) telephone with client and public, (g) public relations presentation, (h) informal training presentation, (i) formal training presentation, and (j) presentation to client. The fourth sub-category within the content skill category was mathematical skills. Nine components were identified in the mathematical skills category: (a) number identification, (b) simple whole number computation, (c) working with fractions, (d) exchanging money (making change), (e) ratios, (f) weights and measurements, (g) percentages, (h) cost or product estimate, and (i) balancing ledger or accounts.

The third major category of social skills was social skills in human relations. The factors within this category of social skills in human relations were selected on the basis of human relations as an integral part of job performance. Ten sub-categories pertaining to human

relations in the occupational setting were identified: (a) taking directions from colleague, (b) taking directions from employer, (c) interaction within group, (d) social poise, (e) interacting with clients, (f) ability to direct other employees (colleagues), (g) ability to take command of a situation without being overbearing or dominant with the other party, (h) portraying self so others will feel confident and not insecure, (i) handling angry or dissatisfied customers, clients, or patients and etc., and (j) quickly establishing a good first impression.

The various categories and sub-categories of social skills contain the social skill factors that appear to be of concern to industrialist and educators. Each factor varied in significance of importance as different occupational categories were analyzed, as shown in the following chapters of the research report.

CHAPTER III

ANALYSIS OF SOCIAL SKILL RATING MARKETING AND DISTRIBUTION OCCUPATIONAL CATEGORY

This chapter contains the mean ratings, as given by personnel who were working in the marketing and distribution occupational category and as given by educators who are training students for marketing and distribution occupations. A comparison is made within the chapter of the ratings given by the two above mentioned groups to determine whether or not there is a significant difference at the .05 level or .01 level of significance between the two groups in ratings on the fifty four social skill factors. The comparison for significance is statistically calculated by use of the t-test. Within each table "t" is given and the mean of the rating on the five point scale is show for each group: G-1 represents the educators, N=8 and G-2 represent the individuals who were employed within the marketing and distribution occupational area, N=33. Five represents the highest rating of imporatnce on the scale and one represents the lowest rating of importance.

Personal Characteristic Category

The first category of social skills that was analyzed was the personal characteristics segment of social skills.

Creativity, as shown in Table I, received above a four point rating by both Group I and Group II. There was no significant difference between the two groups as to the "felt" importance of creativity as related to occupations within the marketing and distribution category.

TABLE I

CREATIVITY

t = .97	*not significant
Group I M = 4.29	Group II M = 4.59

Job related independence was the second factor in this category. As shown in Table II, this factor was given a mean rating of 3.86 by Group I and a mean rating of 4.21 by Group II. There was no significant difference between the two groups as to the rating of importance of this skill.

TABLE II

JOB RELATED INDEPENDENCE

t = .76	*not significant
Group I M = 3.86	Group II M = 4.21

Adaptability in job performance was the third factor within the personal characteristic category. As shown in Table III, this factor was given a mean rating of 4.00 by Group I and a mean rating of 4.74 by Group II. There was a significant difference at the .01 level of significance between the two groups as to the importance of job adaptability in relationship to occupations within the marketing and distribution category.

TABLE III

ADAPTABILITY IN JOB PERFORMANCE

t = 2.71	*significant at .01 level
Group I M = 4.00	Group II M = 4.74

The factor of intraception within the personal characteristic category received a mean rating of 3.86 by Group I and a mean rating of 4.45 by Group II. The difference in ratings by the two groups was not significant beyond the .07 level of significance, as shown in Table IV.

TABLE IV

INTRACEPTION

t = 1.83	*not significant
Group I M = 3.86	Group II M = 4.45

The fifth factor within this major category was that of dress. As shown in Table V, Group I and Group II rated dress as an important factor within the marketing and distribution occupational category as 4.71 and 4.72 respectively. There was no significant difference between the two groups as to the importance of the factor of dress. The type of dress most often identified by the two groups as being most appropriate was shirt and tie for young men and "Sunday dress" for young ladies.

TABLE V

DRESS AS RELATED TO JOB PERFORMANCE

t = .30	*not significant
Group I M = 4.71	Group II M = 4.72

The factor of self-discipline was considered a sub-category within the major category of personal characteristics. Within this sub-category, three sub-factors were analyzed as self-discipline factors in job performance: punctuality, control of temper, completion of work schedule.

As shown in Table VI, the mean rating given by Group I was 4.71, and the mean rating given by Group II was 4.85. There was no significant difference in the rating of the two groups as to the importance of punctuality in job performance within the marketing and distribution occupational area.

TABLE VI

PUNCTUALITY

t = .75	*not significant
Group I M = 4.71	Group II M = 4.85

The second sub-factor in the sub-category of self-discipline was the control of temper as related to job performance. Group I gave a mean rating of 4.57 and Group II gave a mean rating of 4.82 as to the importance of social skill in job performance within the marketing and distribution category, as shown in Table VII. There was no significant difference in the ratings of the two groups.

TABLE VII

CONTROL OF TEMPER

t = 1.03	*not significant
Group I M = 4.57	Group II M = 4.82

The third sub-factor within the sub-category of self-discipline was completion of work schedule. There was a significant difference between the ratings of the two groups as to the importance of this factor in marketing and distribution occupations, as shown in Table VIII. Group

gave the factor a 4.00 rating of importance on the five point scale, and Group II gave the factor a 4.92 rating of importance on the five point scale.

TABLE VIII

COMPLETION OF WORK SCHEDULE

t = 4.11	*significant beyond .01 level
Group I M = 4.00	Group II M = 4.92

Social Skills in Content Areas

The next major category of social skills was social skills in the content areas. The four basic content areas were writing, reading, speaking, and mathematic skills. This area of skills was approached as the skills that a person employed within the marketing and distribution occupational area "must be able to do" and as to the degree of importance of the skill within the specified occupational area.

In view of the design of the selected areas of the social skills within content areas the tables for the content area of social skills appear in a table that incompasses all of the writing skills. The discussion of the findings in relationship to these areas follow in the paragraphs below, with peculiarities in content area of social

skills in the area of marketing and distribution being specifically discussed. Ten social skills in the writing content area were analyzed: (a) letter, (b) work order, (c) report of incident, (d) trade articles, (e) written directions, (f) specifications, (g) bill of laiding, (h) log (daily), (i) invoices, and (j) job tickets.

As shown in Table IX, the mean ratings of the importance of the writing skills in the social skill content area depicted a higher rating on each of the ten factors, as to importance, by the personnel employed in the marketing and distribution occupational area. The mean rating, as given by educators who were training marketing and distribution students, of writing skills as to importance in the social skills content area was an overall 3.41. The mean rating of the importance of the social skills in the writing area as given by personnel working in the marketing and distribution occupational area was an overall 4.30. The two writing skills that received the highest ratings of importance as given by educators training marketing and distribution students were the abilities to write written directions with a 4.17 rating and to write an invoice with a 3.85 rating. The two writing skills that received the highest ratings of importance as given by personnel employed in the occupational area were the abilities to write written directions with a 4.56 rating

and to write job tickets with a 4.65 rating, as shown in Table IX.

TABLE IX

MEAN RATING OF EDUCATORS AND PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION OCCUPATIONS ON THE DEGREE OF IMPORTANCE OF WRITING IN THE SOCIAL SKILLS CONTENT AREA IN MARKETING AND DISTRIBUTION

Writing Skills	Mean Rating of Skills by Educators	Mean Rating of Skills by Personnel
Letter	3.33	4.31
Work Order	3.20	4.39
Report of Incident	3.00	4.17
Trade Article	3.00	3.58
Written Directions	4.17	4.56
Specifications	3.50	4.54
Bill of Laiding	3.43	4.18
Log (Daily)	3.43	4.15
Invoice	3.85	4.48
Job Tickets	3.20	4.65
Mean	3.41	4.30

As shown in Table X, significant differences in the rating of writing skills by educators who trained marketing and distribution students and personnel who were employed in the occupational area existed in four writing skill categories; a .01 level of significance between the ratings of writing skills by the two groups was noted on the skill, writing job tickets, which was given the highest rating by personnel employed in the occupational area; significant differences at .02 beyond the .05 level

of significance appeared in three of the writing skills: work order, report of incident, and specifications, with the personnel employed in the occupation giving the skills the highest rating.

TABLE X

A "t" COMPARISON OF EDUCATORS WHO TRAIN STUDENTS IN MARKETING AND DISTRIBUTION OCCUPATIONS AND THE PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION ON THE RATINGS OF IMPORTANCE OF WRITING SKILLS

Writing Skills	"t"	Level of Significance
Letter Writing	1.94	.06
Work Order	2.52	.02*
Report of Incident	2.29	.03*
Trade Article	0.65	.53
Written Directions	0.97	.66
Specifications	2.15	.04*
Bill of Laiding	1.35	.19
Log (Daily)	1.30	.21
Invoice	1.36	.18
Job Tickets	3.71	.001**

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

Seven social skills in the content area of reading were analyzed: the importance of the ability to read (a) signs and labels, (b) posted directions, (c) memos and directions, (d) work orders with detail, (e) trade articles, (f) analyze technical material, and (g) manuals and letters.

As shown in Table XI, the composite mean rating (4.53) of reading skills given by personnel employed in the

occupational area was higher than the composite mean ratings (3.45) given by the educators. The two reading skills that received the highest rating by employed personnel were signs and labels (4.71) and analyzing technical material (4.65). The two reading skills that received the highest rating by educators were signs and labels (4.57) and memos and directions (4.57).

TABLE XI

MEAN RATINGS OF EDUCATORS AND PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION OCCUPATIONS ON THE DEGREE OF IMPORTANCE OF READING SKILLS IN THE SOCIAL SKILLS CONTENT AREA IN MARKETING AND DISTRIBUTION

Reading Skills (Ability to Read)	Mean Rating of Skills by Educators	Mean Rating of Skills by Personnel
Signs and Labels	4.57	4.71
Posted Directions	4.33	4.53
Memos and Directions	4.57	4.73
Work Orders with Detail	4.20	4.59
Trade Article	3.80	4.04
Analyze Technical Material	2.83	4.65
Manuals and Letters	4.42	4.48
Mean	3.45	4.53

In a comparison of the ratings of reading skills as given by educators and employed personnel within the marketing and distribution occupational area, a significant difference was noted in the rating of one reading skill, as shown in Table XII. A difference as to the importance

of being able to read and analyze technical material was significant at the .01 level of significance, with employed personnel giving the skill the highest rating.

TABLE XII

A "t" COMPARISON OF EDUCATORS WHO TRAIN STUDENTS IN MARKETING AND DISTRIBUTION OCCUPATIONS AND THE PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION ON THE RATINGS OF IMPORTANCE OF READING SKILLS

Reading Skills	"t"	Level of Significance
Signs and Labels	0.44	.56
Posted Directions	0.57	.58
Memos and Directions	0.83	.58
Work Orders with Detail	1.07	.29
Trade Article	0.38	.71
Analyze Technical Material	4.39	.01**
Manuals and Letters	0.85	.59

**Significant at or beyond .01 level of significance

As shown in Table XIII, the composite mean rating (4.41) of speaking skills given by personnel employed in marketing and distribution occupational category was higher than the composite rating (4.36) given by educators. The two speaking skills that received the highest rating by employed personnel were telephone conversation within the organization and public relations presentation. The two speaking skills that received the highest rating by educators were informal conversation with colleague and informal conversation with employer and colleague.

TABLE XIII

MEAN RATINGS OF EDUCATORS AND PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION OCCUPATIONS ON THE DEGREE OF IMPORTANCE OF SPEAKING SKILLS IN THE SOCIAL SKILLS CONTENT AREA IN MARKETING AND DISTRIBUTION

Speaking Skills	Mean Rating of Skills by Educators	Mean Rating of Skills by Personnel
Informal conversation with colleague	4.71	4.35
Informal conversation with employer and colleague	4.71	4.48
Informal conversation with employer, colleague, and client	4.50	4.52
Formalized conversation with employer and client	4.00	4.45
Telephone conversation within organization	4.67	4.66
Telephone conversation with client and public	4.57	3.88
Public relations presentation	4.67	4.59
Informal training presentation	4.29	4.37
Formal training presentation	3.85	3.81
Presentation to client	4.33	4.04
Mean	4.41	4.36

There were no significant differences noted as to the ratings of speaking skills as shown in Table XIV.

TABLE XIV

A "t" COMPARISON OF EDUCATORS WHO TRAIN STUDENTS IN MARKETING AND DISTRIBUTION OCCUPATIONS AND THE PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION ON THE RATINGS OF IMPORTANCE OF SPEAKING SKILLS

Speaking Skills	"t"	Level of Significance
Informal conversation with colleague	0.85	.59
Informal conversation with employer and colleague	0.70	.50
Informal conversation with employer, colleague, and client	0.03	.98
Formalized conversation with employer and client	0.99	.67
Telephone conversation within organization	0.03	.97
Telephone conversation with client and public	0.20	.83
Public relations presentation	0.18	.85
Informal training presentation	0.08	.94
Formal training presentation	0.51	.62
Presentation to client	0.44	.67

As shown in Table XV, the composite mean rating (4.47) of arithmetic skills given by personnel employed in the marketing and distribution occupational area was higher than the composite mean rating (4.25) given by the educator. The two arithmetic skill areas that received the highest ratings by employed personnel were ratios (5.00) and number

identification (4.87). The two arithmetic skills that received the highest ratings by educators were ratios (4.71) and percentages (4.71).

TABLE XV

MEAN RATINGS OF EDUCATORS AND PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION OCCUPATIONS ON THE DEGREE OF IMPORTANCE OF ARITHMETIC SKILLS IN THE SOCIAL SKILLS CONTENT AREA IN MARKETING AND DISTRIBUTION

Arithmetic Skills	Mean Rating of Skills by Educators	Mean Rating of Skills by Personnel
Number identification	4.43	4.87
Simple whole number computation	4.57	4.71
Working with fractions		
Exchanging money	4.57	3.88
Ratios	4.71	5.00
Weights and measurements	3.50	4.20
Percentages	4.71	4.61
Cost or product estimate	4.00	4.09
Balancing ledger or accounts	3.57	4.40
Mean	4.25	4.47

In a comparison of the ratings of arithmetic skills as given by educators and personnel employed in marketing and distribution occupations, a significant difference in the ratings of two arithmetic skills by the two groups was noted, as shown in Table XVI. A difference in the rating of the number identification skill was noted at the .02

level of significance, and a difference in the rating of the ratio computation was noted at the .01 level of significance.

TABLE XVI

A "t" COMPARISON OF EDUCATORS WHO TRAIN STUDENTS IN MARKETING AND DISTRIBUTION OCCUPATIONS AND THE PERSONNEL EMPLOYED IN MARKETING AND DISTRIBUTION ON THE RATINGS OF IMPORTANCE OF ARITHMETIC SKILLS

Arithmetic Skills	"t"	Level of Significance
Number identification	2.36	.02*
Simple whole number computation	0.44	.67
Working with fractions	0.93	.18
Exchanging money	3.19	.01**
Ratios	0.57	.58
Weights and measurements	1.24	.23
Percentages	0.39	.70
Cost or product estimate	0.19	.85
Balancing ledger or accounts	1.61	.12

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

As shown in Table XVII, the two human relation social skills that received the highest ratings by educators were taking directions from colleague (4.57) and taking directions from employer (4.57). The two human relation social skills that received the highest ratings by personnel employed in marketing and distribution occupations were

taking directions from employer (4.91) and establishing a good first impression (4.81).

Human Relations Category

In a comparison of the ratings of human relation social skills, there was a significant difference at the .01 level of significance in the rating of the importance of interacting with clients, with the personnel employed in the occupational category giving the higher rating (4.68). There was a significant difference at the .05 level of significance on the rating of the skill handling angry or dissatisfied customer, with the personnel in the occupational area giving the higher ratings (4.76) as shown in Table XVII.

TABLE XVII

A "t" COMPARISON OF THE MEANS OF THE RATING OF SOCIAL SKILLS AS TO DEGREE OF IMPORTANCE IN HUMAN RELATIONS AS GIVEN BY EDUCATORS IN MARKETING AND DISTRIBUTION PROGRAMS AND PERSONNEL EMPLOYED WITHIN THE MARKETING AND DISTRIBUTION OCCUPATIONAL AREA

Human Relation Social Skills	Mean for Educators	Mean for Personnel	"t"	Level of Significance
Taking directions from colleague	4.57	4.50	0.19	.84
Taking directions from employer	4.57	4.91	1.72	.09
Interaction within group	4.29	4.44	0.46	.65
Social poise	4.17	4.70	1.83	.07
Interacting with client	3.57	4.68	3.20	.01**
Ability to direct colleagues	4.14	4.40	0.68	.51
Ability to take command without being domineering	4.29	4.56	0.73	.52
Portraying self so others will feel confident and not insecure	4.14	4.53	1.07	.29
Handling angry or dissatisfied customers	4.00	4.76	1.98	.05*
Quickly establishing a good first impression	4.28	4.81	1.66	.10

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

CHAPTER IV

HEALTH OCCUPATIONS

The data gathered in the health occupations category were analyzed on a composite basis, encompassing all of the occupational areas currently being taught within the post secondary vocational-technical complexes involved in the sample. The first section of this chapter is devoted to composite data. However, due to the popularity of the practical nursing segment of the occupational area, a section of this chapter deals explicity with practical nursing; the data for practical nursing was extracted from the composite in order to present special social factors and related skill factors for this occupational area within the health occupations category. The number of people involved in the personnel employed in the health occupations category was 45. The number representing the post secondary instructional section was 13.

The social skills were grouped into the following categories: social skills in the personal characteristic category, social skills in the content areas, and social skills in the human relations category. Each category is analyzed on a categorical basis.

Part I: Composite of Health Occupations

Social Skills in the Personal Characteristic Category

The six social skills identified in the personal characteristic category were as follows: creativity, job related independence, adaptability in job performance, intraception, dress as related to job performance, and three skills that were listed as factors of self-discipline; punctuality, control of temper, and completion of work schedule. For interpretative purposes, Chapter II is devoted to an explanation of the instrument utilized in the study.

The three social skills in the personal characteristic category that received the highest mean ratings by Group I (instructors) were punctuality (5.00) which is a maximum rating, control of temper (5.00) which is a maximum rating, and dress as related to job performance (4.90). The three social skills within this category that received the highest mean ratings by Group II (personnel) were punctuality (4.57), dress as related to job performance (4.53), and completion of work schedule (4.49) as shown in Table XVIII.

As shown in Table XVIII, a significant difference at the .05 level of significance between the ratings of the two groups occurred on one factor, control of temper. No other significant differences at or beyond the .05 level of significance occurred between the two groups

TABLE XVIII

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY AS GIVEN BY PERSONNEL EMPLOYED IN THE HEALTH OCCUPATIONS CATEGORY AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.10	3.45	1.43	.16
Job related independence	3.90	4.03	0.33	.74
Adaptability in job performance	4.70	4.14	1.53	.13
Intraception	4.20	4.15	0.13	.89
Dress as related to job performance	4.90	4.53	0.71	.58
Punctuality	5.00	4.57	1.39	.17
Control of temper	5.00	4.40	1.96	.05*
Completion of work schedule	4.80	4.49	1.22	.23

*Significant at or beyond .05 level of significance

Social Skills in the Content Area

Within the content area, four categories of skills were identified: skills in writing, skills in reading, skills in speaking or oral communication, and skills in arithmetic or math. Each skill segment was analyzed on a separate basis.

Ten skills were identified in the writing skill area: letter writing, work order writing, report of incident writing, trade article writing, written directions, specification writing, bill of laiding writing, log (daily) writing, invoice writing, and job ticket writing.

The two groups, instructors and personnel employed in the health occupational area, were compared as to ratings on writing factors as shown in Table XIX.

The three writing skills that received the highest ratings by instructors were: writing directions (4.80), report of incident in writing (4.70), and writing a daily log (4.63). The three writing skills that received the highest ratings by employed personnel were: report of incident in writing (4.59), writing directions (4.32), and writing work orders (4.22). The overall mean rating for the importance of writing skills given by instructors was 4.31. The overall mean rating for the importance of writing skills given by employed personnel was 3.74. A significant difference in the ratings of the social skills in the

TABLE XIX

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF WRITING AS GIVEN BY PERSONNEL EMPLOYED IN THE HEALTH OCCUPATIONS CATEGORY AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.38	3.35	0.04	.96
Work Order	4.44	4.22	0.53	.61
Report of Incident	4.70	4.59	0.38	.71
Trade Article	3.50	3.50	0.00	1.00
Written Directions	4.80	4.32	1.49	.14
Specifications	4.50	3.86	1.19	.24
Bill of Laiding	4.33	3.00	1.03	.34
Log (Daily)	4.63	4.11	0.96	.65
Invoice	4.20	2.22	3.24	.007**
Job Tickets	4.60	4.20	.63	.55
Composite Group Mean	4.31	3.74		

**Significant at or beyond .01 level of significance

writing content area occurred on one factor. There was a significant difference between the two groups beyond the .01 level of significance as to the importance of being able to write invoices, with the instructors rating this factor higher, as shown in Table XIX.

Seven skills were identified in the social skills content area of reading: being able to read signs and labels, posted directions, memos and directions, work orders with detail, trade articles, analyzing technical material, and manuals and letters. The two groups, instructors and employed personnel, were compared on their ratings as to importance of the reading skills in the health occupations area. As shown in Table XX, the three areas of reading that received the highest ratings by the instructors were: reading work orders with detail (4.70), reading signs and labels (4.60), and reading memos and directions (4.40). The three areas of reading that received the highest ratings by the personnel employed in the occupational area were the same three areas given the highest ratings by the instructor group: reading signs and labels (4.68), reading posted directions (4.52), and reading work orders with detail (4.50). The composite mean of the instructors' ratings was 4.32 on the writing skills, and the composite mean of the employed personnel was 4.48. There were no significant differences noted between the ratings of the two groups, as shown in Table XX.

TABLE XX

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF READING AS GIVEN BY PERSONNEL EMPLOYED IN THE HEALTH OCCUPATIONS CATEGORY AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.60	4.68	0.23	.81
Posted Directions	4.40	4.52	0.34	.73
Memos and Directions	4.50	4.46	0.13	.89
Work Orders with detail	4.70	4.50	0.63	.54
Trade Article	3.88	3.40	0.89	.58
Analyze Technical Material	4.30	4.26	0.09	.92
Manuals and Letters	3.89	4.20	0.66	.52
Composite Group Mean	4.32	4.28		

Oral communication was another segment of the social skills in the content area that was analyzed. Ten social skills were identified within the speaking or oral communications segment of the social skill content area: informal conversation with colleague, informal conversation with employer and colleague, informal conversation with employer, colleague and client, formalized conversation with employer and client, telephone conversation within organization, telephone conversation with client and public, public relations presentation, informal training presentation, formal training presentation, and presentation to client.

As shown in Table XXI, the four social skills in the speaking or oral communication category that received the highest ratings by the instructors were: presentation to client (or patient in this case) (5.00), informal conversation with colleague (4.60), telephone conversation within organization (4.60), and public relations presentation within the institution (4.60). The three social skills in the oral communication category that received the highest ratings by the personnel employed in the health occupations area were: informal conversation with employer, colleague and client (4.39), presentation to client (4.33), and informal conversation with colleague (4.22). The composite mean for the total communication skills category as to

TABLE XXI

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING AS GIVEN BY PERSONNEL EMPLOYED IN THE HEALTH OCCUPATIONS CATEGORY AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.60	4.22	0.98	.67
Informal conversation with employer and colleague	4.50	4.10	1.01	.32
Informal conversation with employer, colleague, and client	4.44	4.39	0.16	.87
Formalized conversation with employer and client	4.50	3.78	1.68	.10
Telephone conversation within organization	4.60	4.17	1.09	.28
Telephone conversation with client and public	4.40	4.04	.98	.67
Public relations presentation	4.60	3.92	1.58	.12
Informal training presentation	4.00	3.72	0.61	.55
Formal training presentation	4.33	3.87	0.86	.60
Presentation to client	5.00	4.33	2.03	.05*
Composite Group Mean	4.50	4.05		

*Significant at or beyond .05 level of significance

rating by the instructors was 4.50, and the composite mean for the total communication skills category as to rating by the personnel employed within the health occupations area was 4.05. A significant difference was noted on one of the ratings of the communication skills between the two groups. A significant difference at the .05 level of significance was noted on the skill, presentation to client, with the instructors giving the higher rating for this skill.

As shown in Table XXII, the social skills in the content area of arithmetic were analyzed in nine different categories: number identification, simple whole number computation, working with fractions, exchanging money, ratios, weights and measurements, percentages, cost or product estimates, and balancing ledger or accounts. The three social skills in the content area of arithmetic that received the highest ratings of importance by instructors were: ratios (4.62), weights and measurements (4.80), and percentages (4.56). The three social skills in the content area of arithmetic that received the highest ratings of importance by employed personnel were: number identification (4.55), simple whole number computation (4.35), and weights and measurements (4.07). The total composite mean for ratings on arithmetic skills as given by the instructors was 4.28 and 3.61 as given by the employed personnel. A significant difference between

TABLE XXII

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC AS GIVEN BY PERSONNEL EMPLOYED IN THE HEALTH OCCUPATIONS CATEGORY AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.50	4.55	0.18	.86
Simple whole number computation	4.20	4.35	0.38	.70
Working with fractions	3.80	3.96	0.36	.72
Exchanging money	4.33	2.50	2.80	.02*
Ratios	4.62	3.63	1.97	.05*
Weights and measurements	4.80	4.07	1.89	.06
Percentages	4.56	3.83	1.59	.12
Cost or product estimate	4.00	2.63	1.79	.07
Balancing ledger or accounts	3.75	3.00	0.83	.56
Composite Group Mean	4.28	3.61		

*Significant at or beyond .05 level of significance

the ratings of the two groups at or beyond the .05 level of confidence was noted on two factors. There was a significant difference at the .05 level of confidence on the rating of the skill, ratio computation, with the instructors giving the higher rating, and a significant difference at the .02 level of confidence on the rating of the skill, exchanging money, with the instructors giving the higher rating.

Social Skills in Human Relations Category

Ten skills were identified within the human relations category: taking directions from a colleague, taking directions from employer, interaction within group, social poise, interaction with client, ability to direct colleagues, ability to take command without being domineering, portraying self so others will feel confident and not insecure, handling angry or dissatisfied customers, clients, patients, etc., and quickly establishing a good first impression, as shown in Table XXIII.

The four basic human relation skills that received the highest ratings by the instructors as to importance were: taking directions from employer (5.00) which was maximum, interaction with client (5.00) which was maximum, taking directions from a colleague (4.90), and ability to take command without being domineering (4.90). The three basic human relation skills that received the highest ratings by the employed personnel in the health occupations area were:

TABLE XXIII

A COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY AS GIVEN BY PERSONNEL EMPLOYED IN HEALTH OCCUPATIONS AND INSTRUCTORS OF HEALTH OCCUPATION PROGRAMS IN THE POST SECONDARY HEALTH OCCUPATION PROGRAMS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.90	4.23	2.02	.05*
Taking directions from employer	5.00	4.60	1.37	.17
Interaction within group	4.80	4.27	1.76	.08
Social poise	4.50	4.00	1.33	.19
Interaction with client	5.00	4.11	2.65	.01**
Ability to direct colleagues	4.30	4.12	0.55	.59
Ability to take command without being domineering	4.90	4.21	2.19	.03*
Portraying self so others will feel confident and not feel insecure	4.80	4.26	1.75	.08
Handling angry or dissatisfied customers, clients, patients, etc.	4.80	4.23	1.66	.10
Quickly establishing a good first impression	4.80	4.31	1.65	.10
Composite Group Mean	4.78	4.23		

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

taking directions from employer (4.60), interaction within group (4.27), and portraying self s[illegible] others will feel confident and not feel insecure (4.26). A significant difference at the .05 level of significance occurred on the ratings of two factors by the two groups: taking directions from a colleague, with the instructors giving the higher rating, and ability to take command without being domineering, with the instructors giving the higher rating. A significant difference at the .01 level of significance occurred on the rating of one factor; the factor was the interaction with client, with the instructors giving the higher rating.

Part II: Practical Nursing

Due to the popularity of the practical nursing programs within the post secondary institutions, the segment of health occupations was dealt with as a separate section. The factors found within this segment of the chapter were taken from the composite factors from within the health occupation's occupational category.

For interpretative purposes, the tables within this segment are presented in consecutive order. The first table, Table XXIV, presents a comparison of the ratings of the two groups, Licensed Practical Nurses (N=25) who were employed in health care institutions and Practical Nursing instructors (N=5) who teach in post secondary institutions,

of the social skills factors within the personal characteristic category. The second table within this segment, Table XXV, presents the comparison of the ratings of the two groups on social skills in the content area of writing. The third table within this section, Table XXVI, presents the comparison of the ratings of the two groups on another content area, that of reading. The fourth table in this section, Table XXVII, presents a comparison of the ratings of the two groups on the social skills in the content area of speaking; and the fifth table, Table XXVIII, presents a comparison on the ratings of the two groups on the importance of various social skills in the social skills content area of mathematical skills. Table XXIX presents a comparison of factors in the human relations category.

Within each table a mean rating for each group, Group I (the instructors of Practical Nursing programs) and Group II (the Licensed Practical Nurses who are working in the various health institutions), is given on each social skill factor. A "t" test was run to determine the amount of difference that existed on the rating of each skill for the two groups.

PERSONAL CHARACTERISTIC CATEGORY

TABLE XXIV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Creativity	3.67	3.83	0.32	.75
Job related independence	4.17	3.92	0.52	.61
Adaptability in job performance	5.00	4.12	1.88	.06
Intraception	5.00	4.00	2.70	.01**
Dress as related to job performance	4.50	4.43	0.13	.89
Punctuality	4.60	4.68	0.19	.84
Control of temper	4.60	4.44	0.39	.70
Completion of work schedule	4.83	4.60	0.84	.59
Composite Group Mean	4.55	4.25		

**Significant at or beyond .01 level of significance

SOCIAL SKILLS IN THE CONTENT AREAS

TABLE XXV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Letter Writing	3.20	3.60	0.52	.62
Work Order	4.67	4.50	0.45	.66
Report of Incident	4.33	4.72	1.01	.32
Trade Article	3.33	3.86	0.46	.66
Written Directions	4.50	4.43	0.16	.87
Specifications	4.67	3.88	0.88	.61
Bill of Laiding	4.67	4.51	0.48	.66
Log (Daily)	4.20	4.44	0.73	.52
Invoice	4.23	4.40	0.68	.52
Job Tickets	4.17	3.92	0.49	.64
Composite Group Mean	4.20	4.23		

TABLE XXVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Signs and Labels	4.67	4.57	0.06	.80
Posted Directions	4.67	4.35	0.65	.53
Memos and Directions	4.50	4.27	0.46	.65
Work Orders with detail	4.83	4.53	0.71	.51
Trade Article	4.00	3.67	0.40	.70
Analyze Technical Material	4.17	4.40	0.44	.67
Manuals and Letters	3.60	4.13	0.76	.54
Composite Group Mean	4.35	4.27		

TABLE XXVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING OR ORAL COMMUNICATION

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Informal conversation with colleague	4.67	4.24	0.80	.57
Informal conversation with employer and colleague	4.33	4.05	0.51	.62
Informal conversation with employer, colleague, and client	4.33	4.44	0.30	.77
Formalized conversation with employer and client	4.33	3.67	1.18	.25
Telephone conversation within organization	4.68	4.28	0.81	.57
Telephone conversation with client and public	4.50	4.00	1.12	.28
Public relations presentation	4.83	4.00	1.74	.09
Informal training presentation	4.00	3.53	0.73	.52
Formal training presentation	4.40	4.00	0.59	.57
Presentation to client	5.00	4.31	1.18	.25
Composite Group Mean	4.51	4.10		

TABLE XXVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Number identification	5.00	4.60	1.18	.25
Simple whole number computation	4.50	4.47	0.06	.95
Working with fractions	4.33	4.13	0.45	.66
Exchanging money	3.00	2.20	0.75	.51
Ratios	4.00	3.93	0.09	.92
Weights and measurements	4.83	4.19	1.31	.20
Percentages	4.40	4.08	0.55	.60
Cost or product estimate	2.33	2.80	0.46	.66
Balancing ledger or accounts	2.90	2.50	0.73	.52
Composite Group Mean	3.92	3.65		

SOCIAL SKILLS IN HUMAN RELATIONS

TABLE XXIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF PRACTICAL NURSING IN THE POST SECONDARY INSTITUTIONS AND THE LICENSED PRACTICAL NURSES WORKING IN HEALTH INSTITUTIONS ON SOCIAL SKILLS IN HUMAN RELATIONS

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (LPN's)	"t"	Probability
Taking directions from colleague	4.83	4.13	1.46	.15
Taking directions from employer	5.00	4.54	1.09	.29
Interaction within group	4.67	4.23	1.06	.30
Social poise	4.00	3.95	0.09	.92
Interaction with client	5.00	4.11	2.10	.05*
Ability to direct colleagues	4.50	4.14	0.90	.62
Ability to take command without being domineering	4.83	4.26	1.35	.19
Portraying self so others will feel confident and not feel insecure	4.67	4.25	0.99	.67
Handling angry or idssatisfied patients	4.67	4.21	1.10	.26
Quickly establishing a good first impression	4.83	4.29	1.34	.19
Composite Group Mean	4.70	4.21		

*Significant at or beyond .05 level of significance

CHAPTER V

TRADE AND INDUSTRIAL OCCUPATIONS

In view of the scope of the occupational categories within the trade and industrial segment, the researchers collected composite data for the total occupational area of trade and industrial occupations. However, in order to give deeper insight into the more popular programs within the trade and industrial area, factors relating to specific occupations within the trade and industrial category were reviewed in Part II of this chapter, Chapter V. The first segment of this chapter analyzes composite data from the total trade and industrial spectrum.

Part I

Composite Segment of Trade and Industrial Occupations

Category I: Personal Characteristic Category

Eight basic social skills were categorized into the personal characteristic category: creativity, job related independence, adaptability in job performance, intraception, dress as related to job performance, punctuality, control of temper, and completion of work schedule. The groups (Group I, the instructors within the trade and industrial training programs within the post secondary institutions, and Group II, the

personnel within trade and industrial occupations within industrial settings) rated the skills as to importance within various occupational settings. As shown in Table XXX, Group I (instructors) gave a composite mean rating of 4.24 as to the overall importance of the personal characteristic category of social skills. Group II (employed personnel) gave a mean rating of 3.70 as to the overall importance of the personal characteristic category of social skills.

The three social skills in the personal characteristic category that received the highest ratings on a five point scale of importance as given by Group I (instructors) were: punctuality (4.78), completion of work schedule (4.69), and control of temper (4.64). The three social skills in the personal characteristic category that received the highest ratings on a five point scale of importance as given by Group II (employed personnel) were: punctuality (4.26), completion of work schedule (4.07), and control of temper (4.07), as shown in Table XXX.

A significant difference, at the .05 level of confidence, existed between the ratings given by the two groups on one factor, intraception. However, a significant difference at or beyond the .01 level of significance between the ratings of the two groups existed on six of the personal characteristic social skills. The largest margin of difference on the ratings of the social skills within this category existed on the factor of job related independence.

TABLE XXX

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.75	3.20	2.72	.008**
Job related independence	4.09	3.43	3.41	.001**
Adaptability in job performance	4.33	3.73	3.29	.002**
Intraception	3.65	3.16	1.99	.05*
Dress as related to job performance	4.04	3.81	1.01	.31
Punctuality	4.78	4.26	3.04	.003**
Control of temper	4.64	4.01	3.10	.003**
Completion of work schedule	4.69	4.07	3.31	.002**
Composite Group Mean	4.24	3.70		

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

Category II: Social Skills in the Content Area

Ten social skills were categorized in the content area of writing: writing letters, writing work orders, writing incident reports, writing trade articles, writing directions, writing specifications, writing bill of laiding, writing daily log, writing invoices, and writing job tickets. The groups (Group I, the instructors within the trade and industrial training programs within the post secondary institutions, and Group II, the personnel within trade and industrial occupations within industrial settings) rated the ten skills in the content area of writing as to the importance of these skills within the occupation settings in trade and industry. As shown in Table XXXI, Group I gave a composite mean rating of 3.77, on a five point scale, as to the overall importance of writing skills. Group II gave a composite mean rating of 2.67, on a five point scale, as to the overall importance of writing skills.

Three social skills received a four point or better rating, as to importance, by Group I: writing specifications (4.38), writing job tickets (4.18), and writing work orders (4.15). The three social skills in the content area of writing that received the highest ratings by Group II were: writing directions (3.11), writing job tickets (3.08), and writing a daily log (2.76).

As indicated in Table XXXI, there was a significant difference at or beyond the .01 level of significance between

TABLE XXXI

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF WRITING AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.00	2.67	1.48	.14
Work Order	4.15	2.66	4.01	.00**
Report of Incident	3.82	2.63	4.96	.000**
Trade Article	3.70	2.27	5.29	.000**
Written Directions	3.88	3.11	3.26	.002**
Specifications	4.38	2.69	8.17	.000**
Bill of Laiding	3.58	2.27	4.85	.0001**
Log (Daily)	3.38	2.76	2.06	.04*
Invoice	3.65	2.57	4.10	.0003**
Job Tickets	4.18	3.08	4.43	.0001**
Composite Group Mean	3.77	2.67		

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

the ratings of the two groups on the following writing skills: writing work orders, writing incident reports, writing trade articles, writing directions, writing specifications, writing bill of laidings, writing invoices, and writing job tickets. A significance at or beyond the .05 level of significance occurred on the rating of the skill, writing a daily log.

Seven social skills were identified within the content area of reading (ability to read): signs and labels, posted directions, reading memos and directions, work orders with detail, trade articles, analyzing technical material, and reading manuals and letters. As shown in Table XXXII, the three reading skills that received the highest ratings in the content area of reading by Group I (instructors) were (the ability to read): work orders with detail (4.60), signs and labels (4.37), and posted directions (4.24). The three reading skills that received the highest ratings by Group II (employed personnel) were (the ability to read): posted directions (4.23), signs and labels (4.16), and work orders with detail (3.80). The composite mean rating as given by Group I was 4.20 for the reading skills as related to the occupational area of trade and industrial occupations. The composite mean rating of Group II as to the importance of reading skills within the content area as related to occupations within the trade and industrial occupational category

TABLE XXXII

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF READING AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.37	4.16	0.99	.67
Posted Directions	4.24	4.23	0.03	.97
Memos and Directions	3.98	3.79	0.89	.70
Work Orders with detail	4.60	3.80	4.19	.0002**
Trade Article	3.96	2.96	4.79	.000**
Analyze Technical Material	3.98	3.18	3.14	.003**
Manuals and Letters	4.18	3.49	3.02	.004**
Composite Group Mean	4.20	3.67		

**Significant at or beyond .01 level of significance

was 3.67. A significance at or beyond the .01 level of significance between the ratings of the two groups existed in four of the seven social skills area in the reading category: (ability to read) work orders with detail, trade articles, analyze technical material, and manuals and letters. No significant differences were noted within the other three social skills in the content area of reading.

Ten basic social skills were identified in the content area of speaking: informal conversation with colleague, informal conversation with employer and colleague, informal conversation with employer, colleague, and client, formalized conversation with employer and client, telephone within organization, telephone with client and public, public relations presentation, informal training presentation, formal training presentation, and presentation to client. As shown in Table XXXIII, the three social skills in the content area of speaking that received the highest ratings as to importance by Group I were: informal conversation with employer, colleague, and client (4.08), informal conversation with employer and colleague (3.88), and presentation to client (3.84). The three social skills in the content area of speaking that were given the highest ratings by Group II were: informal conversation with employer and colleague (3.54), informal conversation with colleague (3.46), and informal conversation with employer, colleague, and client (3.06). The composite mean

TABLE XXXIII

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.79	3.46	1.46	.14
Informal conversation with employer and colleague	3.88	3.54	1.61	.11
Informal conversation with employer, colleague, and client	4.08	3.06	4.80	.000**
Formalized conversation with employer and client	3.64	2.01	4.93	.000**
Telephone conversation within organization	3.67	2.33	6.00	.000**
Telephone conversation with client and public	3.81	2.57	4.40	.000**
Public relations presentation	3.46	2.32	4.31	.000**
Informal training presentation	3.31	2.00	6.46	.000**
Formal training presentation	3.29	1.74	6.90	.000**
Presentation to client	3.84	1.97	6.36	.000**
Composite Group Mean	3.68	2.50		

*Significant at or beyond .05 level of significance
**Significant at or beyond .01 level of significance

rating of social skills in the content area of speaking were as follows: Group I, 3.68; Group II, 2.50. A significant difference at or beyond the .01 level of significance existed between the ratings of the two groups on all of the social skills within the speaking category except the following: informal conversation with colleague with a "t" of 1.46, and informal conversation with employer and colleague with a "t" of 1.61.

As shown in Table XXXIV, the social skills in the content area of arithmetic that received the highest ratings, as to importance, by Group I were: number identification (4.56), simple whole number computation (4.27), and cost or product estimate (4.10). The three social skills in the arithmetic area that received the highest ratings by Group II were: number identification (3.95), simple whole number computation (3.48), and exchanging money (3.33). The composite mean rating of the instructors as to the importance of arithmetic in trade and industrial occupations was 3.92. The composite mean rating of the employed personnel in trade and industrial occupations on the importance of arithmetic in trade and indus-rial occupations was 2.94. In a comparison of the ratings between the two groups, a significant difference at or beyond the .01 level of significance occurred on all of the social skills within the arithmetic category except one, the skill of exchanging money.

TABLE XXXIV

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.56	3.95	2.94	.004**
Simple whole number computation	4.27	3.48	3.34	.022**
Working with fractions	4.02	2.58	5.53	.000**
Exchanging money	3.85	3.33	1.81	.07
Ratios	3.61	2.81	3.02	.004**
Weights and measurements	3.77	3.14	2.48	.01**
Percentages	3.64	2.45	4.40	.000**
Cost or product estimate	4.10	2.27	6.91	.000**
Balancing ledger or accounts	3.43	2.48	2.81	.007**
Composite Group Mean	3.92	2.94		

**Significant at or beyond .01 level of significance

Category III: Social Skills in Human Relations

Ten social skills were identified within the human relations' segment. The skills were as follows: taking directions from colleague, taking directions from employer, interaction within group, social poise, interaction with client, ability to direct colleagues, ability to take command without being domineering, portraying self so others will feel confident and not insecure, handling angry or dissatisfied customers, clients, patients, etc., and quickly establishing a good first impression.

The three social skills in the category of human relations that received the highest ratings as to importance were: taking directions from employer (4.78), taking directions from colleague (4.40), and quickly establishing a good first impression (4.27), as shown in Table XXXV. The three social skills in the category of human relations that received the highest ratings by Group II were: taking directions from employer (4.00), interaction within group (3.59) and quickly establishing a good first impression (3.50). The composite mean for Group I as to the importance of human relation skills was 4.15, and Group II had a composite mean of 3.26. In comparing the difference in the ratings of the various factors as rated by the two groups, there was a significant difference at or beyond the .01 level of significance on all human relation factors except interaction within a group.

TABLE XXXV

A COMPOSITE COMPARISON OF THE RATINGS OF SOCIAL SKILLS IN THE AREA OF HUMAN RELATIONS AS RATED BY INSTRUCTORS OF TRADE AND INDUSTRIAL OCCUPATIONS IN POST SECONDARY INSTITUTIONS AND PERSONNEL EMPLOYED IN TRADE AND INDUSTRIAL OCCUPATIONS IN INDUSTRY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.40	3.25	4.84	.000**
Taking directions from employer	4.78	4.00	4.04	.000**
Interaction within group	3.98	3.59	1.78	.07
Social poise	3.47	2.66	3.88	.000**
Interaction with client	3.94	2.81	4.91	.000**
Ability to direct colleagues	4.02	3.02	4.72	.000**
Ability to take command without being domineering	4.25	3.31	4.03	.000**
Portraying self so others will feel confident and not feel insecure	4.11	3.50	2.86	.005**
Handling angry or dissatisfied customers, clients patients, etc.	4.25	2.98	4.91	.000**
Quickly establishing a good first impression	4.27	3.50	3.24	.000**
Composite Group Mean	4.15	3.26		

**Significant at or beyond .01 level of significance

Part II

Analyzation of Specific Occupational Categories Within the Trade and Industrial Category

Due to the popularity of various programs within the post secondary institutions, six programs within the composite of the various trade and industrial occupations were selected to be analyzed separately: Machine Shop, Building Trades and Related Areas, Auto Mechanics, Welding, Industrial Electricity, and Heating, Air Conditioning, and Refrigeration. These areas comprise this segment, which is Part II of Chapter V. Due to the amount of data, each segment was analyzed on a table basis with the following sequence of tables given to each analyzation: Social Skills as Related to Personal Characteristics, Social Skills in the Content Areas of Writing, Reading, Speaking, and Mathematics, and Social Skills in the Human Relations Category.

PERSONAL CHARACTERISTIC CATEGORY
MACHINE SHOP

TABLE XXXVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.80	4.00	2.78	.02**
Job related independence	4.20	3.88	0.99	.65
Adaptability in job performance	4.50	3.88	1.03	.33
Intraception	4.00	3.62	0.51	.61
Dress as related to job performance	4.20	4.13	0.23	.83
Punctuality	5.00	4.63	1.59	.14
Control of temper	4.40	3.38	1.82	.07
Completion of work schedule	5.00	4.50	2.06	.05*
Composite Group Mean	4.51	4.00		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

SOCIAL SKILLS IN THE CONTENT AREAS
MACHINE SHOP

TABLE XXXVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.00	2.37	2.65	.01**
Work Order	4.40	4.50	0.33	.74
Report of Incident	3.60	3.13	0.87	.59
Trade Article	4.50	1.63	8.75	.000**
Written Directions	4.50	3.25	4.08	.000**
Specifications	4.40	4.38	0.09	.93
Bill of Laiding	3.50	2.37	1.51	.16
Log (Daily)	3.00	1.50	3.32	.000**
Invoice	3.20	3.25	0.09	.93
Job Tickets	4.00	3.25	1.28	.22
Composite Group Mean	3.81	2.96		

TABLE XXXVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.20	1.87	3.22	.000**
Posted Directions	4.00	3.62	0.53	.61
Memos and Directions	4.00	3.00	2.06	.05*
Work Orders with detail	4.40	4.63	0.58	.58
Trade Article	4.40	3.87	1.24	.23
Analyze Technical Material	4.60	4.87	1.11	.29
Manuals and Letters	4.50	2.75	2.22	.04*
Composite Group Mean	4.30	3.51		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE XXXIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.60	2.75	2.28	.04*
Informal conversation with employer and colleague	4.00	2.25	2.31	.03*
Informal conversation with employer, colleague, and client	4.20	3.00	2.68	02*
Formalized conversation with employer and client	2.80	3.37	0.94	.62
Telephone conversation within organization	3.40	4.25	1.51	.15
Telephone conversation with client and public	2.75	2.37	0.45	.67
Public relations presentation	3.40	4.25	1.29	.22
Informal training presentation	2.60	3.50	1.73	.10
Formal training presentation	3.40	3.62	0.36	.76
Presentation to client	3.00	3.75	1.26	.23
Composite Group Mean	3.31	3.31		

*Significant at .05 level of significance.

TABLE XL

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.60	3.87	1.71	.11
Simple whole number computation	4.50	3.67	1.57	.14
Working with fractions	5.00	5.00	0.00	1.00
Exchanging money	2.60	1.63	1.46	.17
Ratios	4.50	4.00	1.49	.16
Weights and measurements	4.20	2.75	2.41	.03*
Percentages	4.00	3.00	2.91	.01**
Cost or product estimate	4.40	3.87	2.12	.05*
Balancing ledger or accounts	2.75	3.50	1.18	.26
Composite Group Mean	4.06	3.47		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

HUMAN RELATIONS CATEGORY
MACHINE SHOP

TABLE XLI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF MACHINE SHOP IN POST SECONDARY INSTITUTIONS AND THE MACHINISTS EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.20	2.37	2.98	.01**
Taking directions from employer	5.00	3.50	2.76	.01**
Interaction within group	4.00	4.25	1.19	.25
Social poise	3.40	3.62	0.43	.67
Interaction with client	2.75	3.62	1.11	.29
Ability to direct colleagues	3.80	3.25	1.27	.22
Ability to take command without being domineering	4.20	3.12	2.62	.02*
Portraying self so others will feel confident and not feel insecure	4.40	3.25	4.07	.000**
Handling angry or dissatisfied customers, clients, patients, etc.	3.40	2.50	1.56	.14
Quickly establishing a good first impression	3.40	2.62	1.50	.16
Composite Group Mean	3.85	3.21		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

PERSONAL CHARACTERISTIC CATEGORY
BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS

TABLE XLII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.67	2.73	1.39	.18
Job related independence	3.50	3.00	0.67	.52
Adaptability in job performance	4.25	2.90	2.24	.04*
Intraception	3.25	2.80	0.90	.61
Dress as related to job performance	4.25	2.70	2.21	.04*
Punctuality	4.00	3.22	0.92	.62
Control of temper	4.00	2.45	1.61	.12
Completion of work schedule	4.00	2.63	1.63	.12
Composite Group Mean	3.87	2.80		

*Significant at or beyond .05 level of significance.

SOCIAL SKILLS IN THE CONTENT AREAS
BUILDING TRADES AND RELATED OCCUPATIONAL AREAS

TABLE XLIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.25	1.91	2.42	.02*
Work Order	3.25	2.00	1.78	.09
Report of Incident	3.75	2.09	2.30	.03*
Trade Article	3.25	2.72	0.78	.55
Written Directions	3.00	2.78	0.26	.79
Specifications	3.75	2.63	1.56	.14
Bill of Laiding	3.33	2.28	1.23	.25
Log (Daily)	2.66	3.00	0.32	.75
Invoice	3.00	2.28	0.79	.55
Job Tickets	3.50	2.88	0.47	.65
Composite Group Mean	3.27	2.46		

*Significant at or beyond .05 level of significance.

TABLE XLIV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.00	3.27	0.87	.60
Posted Directions	3.75	3.36	0.45	.66
Memos and Directions	3.75	2.80	1.13	.28
Work Orders with detail	4.25	3.33	1.02	.33
Trade Article	3.25	2.91	0.45	.66
Analyze Technical Material	1.75	2.54	1.11	.28
Manuals and Letters	2.75	2.66	0.10	.91
Composite Group Mean	3.36	2.98		

TABLE XLV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.50	3.63	0.18	.84
Informal conversation with employer and colleague	3.50	3.45	0.07	.93
Informal conversation with employer, colleague, and client	3.25	3.30	0.07	.93
Formalized conversation with employer and client	3.00	1.90	1.64	.12
Telephone conversation within organization	3.75	2.45	2.36	.03*
Telephone conversation with client and public	3.00	2.18	1.48	.16
Public relations presentation	3.50	1.81	3.18	.000**
Informal training presentation	3.00	2.09	1.70	.11
Formal training presentation	2.75	1.72	1.63	.12
Presentation to client	3.00	1.45	2.68	.02*
Composite Group Mean	3.22	2.39		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE XLVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	3.50	3.18	0.36	.73
Simple whole number computation	3.25	3.00	0.28	.78
Working with fractions	3.00	2.45	0.50	.63
Exchanging money	4.25	3.72	0.60	.56
Ratios	3.00	2.30	0.80	.55
Weights and measurements	2.25	2.27	0.08	.98
Percentages	2.50	1.63	1.01	.32
Cost of product estimate	2.50	1.54	1.26	.22
Balancing ledger or accounts	3.50	2.00	1.04	.33
Composite Group Mean	3.08	2.45		

HUMAN RELATIONS CATEGORY
BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS

TABLE XLVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUILDING TRADES AND RELATED OCCUPATIONAL PROGRAMS IN POST SECONDARY INSTITUTIONS AND BUILDING TRADE PERSONNEL EMPLOYED IN INDUSTRY AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	2.75	2.36	0.39	.70
Taking directions from employer	3.75	3.18	0.74	.52
Interaction within group	2.75	3.27	0.62	.55
Social poise	2.00	1.72	0.42	.68
Interacting with client	3.25	1.54	2.86	.01**
Ability to direct colleagues	3.25	1.90	1.97	.05*
Ability to take command without being domineering	2.75	2.10	0.68	.51
Portraying self so others will feel confident and not feel insecure	3.00	2.90	0.10	.91
Handling angry or dissatisfied customers, clients, patients, etc.	2.67	1.67	1.09	.20
Quickly establishing a good first impression	2.75	2.82	0.09	.93
Composite Group Mean	2.89	2.35		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

PERSONAL CHARACTERISTIC CATEGORY
AUTO MECHANICS

TABLE XLVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.00	4.00	0.00	1.00
Job related independence	4.30	3.88	1.02	.32
Adaptability in job performance	4.50	4.33	0.52	.61
Intraception	3.77	3.78	0.00	1.00
Dress as related to job performance	4.50	4.22	0.66	.52
Punctuality	4.55	4.66	0.38	.71
Control of temper	4.60	4.78	0.65	.53
Completion of work schedule	4.44	4.55	0.29	.77
Composite Group Mean	4.33	4.28		

SOCIAL SKILLS IN THE CONTENT AREAS
AUTO MECHANICS

TABLE XLIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.17	3.50	0.49	.63
Work Order	4.40	4.29	0.24	.80
Report of Incident	4.22	4.00	0.45	.66
Trade Article	4.33	2.00	3.50	.005**
Written Directions	4.40	3.50	1.56	.14
Specifications	5.00	4.33	4.11	.002**
Bill of Laiding	4.61	4.77	0.65	.53
Log (Daily)	4.10	4.00	0.02	.97
Invoice	4.33	4.50	0.30	.76
Job Tickets	4.56	4.25	0.76	.53
Composite Group Mean	4.31	3.91		

**Significant at or beyond .01 level of significance.

TABLE L

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.40	4.88	1.91	.07
Posted Directions	4.66	4.77	0.40	.69
Memos and Directions	4.40	4.66	0.95	.69
Work Orders with detail	5.00	4.77	1.59	.13
Trade Article	4.55	3.55	2.92	.009**
Analyze Technical Material	4.66	4.66	0.00	1.00
Manuals and Letters	5.00	4.88	1.00	.33
Composite Group Mean	4.67	4.60		

**Significant at or beyond .01 level of significance.

TABLE LI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.30	3.56	0.46	.65
Informal conversation with employer and colleague	4.00	4.11	0.24	.80
Informal conversation with employer, colleague, and client	4.00	4.22	0.64	.53
Formalized conversation with employer and client	4.10	2.37	4.43	.000**
Telephone conversation within organization	3.70	2.00	1.99	.05*
Telephone conversation with client and public	4.00	4.33	0.41	.69
Public relations presentation	4.33	4.50	0.30	.76
Informal training Presentation	4.60	4.76	0.64	.53
Formal training presentation	4.50	4.22	0.66	.52
Presentation to client	4.30	3.28	1.80	.07
Composite Group Mean	4.08	3.73		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.80	5.00	1.42	.17
Simple whole number computation	4.60	4.75	0.45	.66
Working with fractions	4.56	3.89	1.23	.23
Exchanging money	4.50	4.00	0.63	.55
Ratios	3.70	3.75	0.09	.93
Weights and measurements	4.00	4.42	0.86	.59
Percentage	3.77	3.13	1.15	.27
Cost or product estimate	4.30	3.28	1.80	.07
Balancing ledger or accounts	4.62	4.77	0.46	.67
Composite Group Mean	4.28	3.97		

HUMAN RELATIONS CATEGORY
AUTO MECHANICS

TABLE LIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF AUTO MECHANICS IN POST SECONDARY INSTITUTIONS AND THE AUTO MECHANICS WORKING WITHIN THE OCCUPATION ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.30	3.56	1.48	.15
Taking directions from employer	4.80	5.00	1.42	.17
Interaction within group	3.90	4.33	1.00	.32
Social poise	3.60	3.78	0.43	.67
Interacting with client	3.90	4.22	0.82	.57
Ability to direct colleagues	4.10	3.88	0.68	.51
Ability to take command without being domineering	4.30	4.78	1.55	.13
Portraying self so others will feel secure and not feel insecure	4.10	4.44	1.37	.18
Handling angry or dissatisfied customers, clinets, patients, etc.	4.80	4.00	1.82	.08
Quickly establishing a good first impression	4.70	4.67	0.12	.89
Composite Group Mean	4.25	4.27		

PERSONAL CHARACTERISTIC CATEGORY
HEATING, AIR CONDITIONING, AND REFRIGERATION

TABLE LIV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.12	3.25	0.23	.81
Job related independence	3.62	2.50	3.00	.009**
Adaptability in job performance	3.62	3.25	0.72	.50
Intraception	3.12	2.75	0.87	.59
Dress as related to job performance	3.37	2.50	2.08	.05*
Punctuality	4.75	4.25	1.67	.11
Control of temper	4.37	3.25	2.75	.01**
Completion of work schedule	4.12	3.37	2.58	.02*
Composite Group Mean	3.76	3.14		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

SOCIAL SKILLS IN THE CONTENT AREAS
HEATING, AIR CONDITIONING, AND REFRIGERATION

TABLE LV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	2.71	3.37	1.70	.10
Work Order	3.87	4.00	0.26	.79
Report of Incident	3.57	3.87	0.52	.61
Trade Article	3.75	3.50	1.24	.70
Written Directions	3.38	3.25	0.21	.82
Specifications	3.62	3.38	0.55	.59
Bill of Laiding	3.00	3.87	1.85	.08
Log (Daily)	3.12	3.75	1.04	.31
Invoice	3.25	4.25	1.81	.07
Job Tickets	3.62	3.62	0.00	1.00
Composite Group Mean	3.39	3.69		

TABLE LVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.50	3.88	1.42	.16
Posted Directions	3.50	3.88	0.78	.54
Memos and Directions	3.37	3.37	0.00	1.00
Work Orders with detail	4.38	3.88	1.14	.27
Trade Article	3.75	4.00	0.42	.68
Analyze Technical Material	3.86	3.88	0.08	.97
Manuals and Letters	4.13	3.63	0.97	.65
Composite Group Mean	3.93	3.79		

TABLE LVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.25	3.88	0.79	.54
Informal conversation with employer and colleague	3.87	4.00	0.27	.79
Informal conversation with employer, colleague, and client	4.00	4.12	0.228	.82
Formalized conversation with employer and client	3.71	4.00	0.59	.57
Telephone conversation within organization	3.57	3.75	0.34	.74
Telephone conversation with client and public	3.71	4.00	0.59	.57
Public relations presentation	3.17	3.75	1.06	.29
Informal training presentation	3.60	4.62	2.24	.04*
Formal training presentation	3.40	4.00	1.15	.27
Presentation to client	3.67	3.75	0.15	.87
Composite Group Mean	3.70	3.99		

*Significant at or beyond .05 level of significance.

TABLE LVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.42	4.12	0.64	.53
Simple whole number computation	4.33	4.62	0.55	.59
Working with fractions	3.57	3.87	0.57	.57
Exchanging money	3.86	4.00	0.27	.78
Ratios	3.00	3.75	1.42	.17
Weights and measurements	4.33	4.12	0.47	.61
Percentages	3.00	3.75	1.08	.21
Cost or product estimate	4.50	3.75	1.60	.13
Balancing ledger or accounts	4.00	4.00	0.00	1.00
Composite Group Mean	3.89	3.60		

HUMAN RELATIONS CATEGORY
HEATING, AIR CONDITIONING, AND REFRIGERATION

TABLE LIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF HEATING, AIR CONDITIONING, AND REFRIGERATION IN POST SECONDARY INSTITUTIONS AND THE EMPLOYED PERSONNEL IN HEATING, AIR CONDITIONING, AND REFRIGERATION OCCUPATIONS ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	3.86	3.75	0.35	.73
Taking directions from employer	4.85	3.87	2.85	.01**
Interaction within group	3.85	3.87	0.04	.97
Social poise	3.71	4.00	0.65	.53
Interacting with client	4.66	3.75	2.67	.01**
Ability to direct colleagues	3.71	4.12	0.99	.65
Ability to take command without being domineering	3.85	3.37	1.29	.21
Portraying self so others will feel secure and not feel insecure	4.28	3.12	2.52	.02*
Handling angry or dissatisfied customers, clients, patients, etc.	4.28	3.12	2.13	.04*
Quickly establishing a good first impression	4.28	4.37	2.08	.05*
Composite Group Mean	4.13	3.73		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

PERSONAL CHARACTERISTIC CATEGORY
WELDING

TABLE LX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.50	3.27	0.46	.65
Job related independence	4.50	4.09	1.28	.22
Adaptability in job performance	4.50	3.00	3.50	.004**
Intraception	3.50	1.82	2.50	.02*
Dress as related to job performance	3.66	4.45	1.07	.31
Punctuality	4.25	4.54	0.49	.63
Control of temper	4.50	4.27	0.46	.65
Completion of work schedule	4.75	4.45	0.67	.52
Composite Group Mean	4.15	3.73		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

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SOCIAL SKILLS IN THE CONTENT AREAS
WELDING

TABLE LXI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	2.50	3.00	1.29	.22
Work Order	3.75	2.18	4.62	.000**
Report of Incident	3.25	2.90	1.07	.30
Trade Article	3.00	1.80	2.55	.02*
Written Directions	3.75	2.45	2.36	.03*
Specifications	4.00	2.80	1.78	.08
Bill of Laiding	4.00	2.40	3.23	.007**
Log (Daily)	2.66	1.30	2.33	.04*
Invoice	3.33	2.20	2.28	.04*
Job Tickets	4.00	3.36	1.03	.32
Composite Group Mean	3.42	2.44		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LXII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.25	4.72	1.33	.21
Posted Directions	3.50	4.90	4.40	.001**
Memos and Directions	3.00	3.45	0.79	.59
Work Orders with detail	4.00	3.09	1.37	.19
Trade Article	3.75	2.60	2.02	.05*
Analyze Technical Material	2.75	4.54	2.39	.03*
Manuals and Letters	2.33	4.55	3.49	.005**
Composite Group Mean	3.37	3.98		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LXIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.33	2.27	1.57	.13
Informal conversation with employer and colleague	3.75	2.63	1.65	.12
Informal conversation with employer, colleague, and client	3.25	2.64	1.13	.28
Formalized conversation with employer and client	2.67	2.00	0.93	.62
Telephone conversation within organization	2.00	1.90	0.14	.88
Telephone conversation with client and public	1.66	2.18	0.64	.54
Public relations presentation	2.00	2.27	0.38	.71
Informal training presentation	2.66	2.09	0.90	.61
Formal training presentation	3.33	1.70	2.30	.04*
Presentation to client	2.00	2.36	0.36	.72
Composite Group Mean	2.67	2.20		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LXIV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skills	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	3.75	3.36	0.71	.50
Simple whole number computation	3.75	3.00	1.41	.17
Working with fractions	3.76	2.36	2.81	.01**
Exchanging money	3.00	2.63	0.76	.72
Ratios	2.50	2.81	0.55	.59
Weights and measurements	3.00	2.45	0.82	.57
Percentages	2.00	2.27	0.32	.75
Cost or product estimate	2.75	2.26	0.72	.51
Balancing ledger or accounts	1.68	2.16	0.53	.60
Composite Group Mean	2.91	2.59		

**Significant at or beyond .01 level of significance.

HUMAN RELATIONS CATEGORY
WELDING

TABLE LXV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF WELDING IN THE POST SECONDARY INSTITUTIONS AND THE WELDERS EMPLOYED WITHIN THE OCCUPATION OF WELDING ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.00	1.90	3.14	.008**
Taking directions from employer	4.50	2.54	3.04	.009**
Interaction within group	2.75	2.54	0.46	.66
Social poise	3.00	1.81	4.91	.000**
Interacting with client	3.00	2.36	1.34	.19
Ability to direct colleagues	2.75	2.18	1.09	.28
Ability to take command without being domineering	3.75	1.81	4.12	.001**
Portraying self so others will feel secure and not feel insecure	3.75	2.45	2.18	.04*
Handling angry or dissatisfied customers, clients, patients, etc.	2.50	2.18	0.45	.66
Quickly establishing a good first impression	3.50	2.63	1.15	.27
Composite Group Mean	3.36	2.24		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

PERSONAL CHARACTERISTIC CATEGORY
INDUSTRIAL ELECTRICITY

TABLE LXVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATIONS OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.00	3.37	0.58	.57
Job related independence	4.25	3.50	1.10	.27
Adaptability in job performance	4.75	4.25	0.94	.65
Intraception	4.00	4.25	0.39	.69
Dress as related to job performance	3.66	4.12	0.63	.54
Punctuality	5.00	4.81	0.42	.68
Control of temper	4.75	4.56	0.40	.69
Completion of work schedule	4.50	4.43	0.11	.90
Composite Group Mean	4.24	4.29		

SOCIAL SKILLS IN THE CONTENT AREAS
INDUSTRIAL ELECTRICITY

TABLE LXVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATION OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	2.66	2.66	0.00	1.00
Work Order	4.25	1.50	5.68	.006**
Report of Incident	4.00	2.20	2.01	.05*
Trade Article	4.25	3.50	1.10	.27
Written Directions	4.00	3.73	0.40	.69
Specifications	4.25	2.25	3.14	.007**
Bill of Laiding	3.66	4.12	0.63	.69
Log (Daily)	2.75	4.00	1.49	.15
Invoice	3.50	2.66	0.88	.60
Job Tickets	4.00	2.66	1.61	.12
Composite Group Mean	3.73	2.92		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LXVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATION OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.75	4.56	0.44	.67
Posted Directions	4.75	4.75	0.00	1.00
Memos and Directions	4.50	4.50	0.00	1.00
Work Orders with detail	4.75	4.26	0.89	.61
Trade Article	4.00	2.69	2.04	.05*
Analyze Technical Material	3.25	2.07	2.50	.02*
Manuals and Letters	4.00	3.13	1.43	.15
Composite Group Mean	4.28	3.71		

*Significant at or beyond .05 level of significance.

TABLE LXIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATION OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.50	4.06	0.63	.54
Informal conversation with employer and colleague	4.25	4.06	0.26	.79
Informal conversation with employer, colleague, and client	4.25	2.42	2.86	.01**
Formalized conversation with employer and client	3.75	1.53	4.01	.001**
Telephone conversation within organization	4.25	2.21	3.29	.005**
Telephone conversation with client and public	4.66	2.28	2.43	.03*
Public relations presentation	4.00	3.00	0.95	.58
Informal training presentation	3.25	1.63	2.96	.01**
Formal training presentation	2.75	1.33	1.95	.08
Presentation to client	3.75	3.18	1.18	.26
Composite Group Mean	3.94	2.57		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE LXX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATIONS OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.50	4.68	0.49	.63
Simple whole number computation	4.25	4.33	0.14	.89
Working with fractions	4.75	2.20	3.35	.01**
Exchanging money	4.29	3.16	1.67	.13
Ratios	4.25	3.50	0.96	.61
Weights and measurements	4.00	3.80	0.31	.76
Percentages	4.50	2.90	1.71	.11
Cost or product estimate	4.33	1.66	3.58	.01**
Balancing ledger or accounts	3.00	3.37	0.58	.57
Composite Group Mean	4.27	3.27		

**Significant at or beyond .01 level of significance.

HUMAN RELATIONS CATEGORY
INDUSTRIAL ELECTRICITY

TABLE LXXI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF INDUSTRIAL ELECTRICITY IN THE POST SECONDARY INSTITUTIONS AND THE INDUSTRIAL ELECTRICIANS EMPLOYED WITHIN THE OCCUPATION OF INDUSTRIAL ELECTRICITY ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.50	4.43	0.12	.89
Taking directions from employer	4.50	4.75	1.07	.29
Interaction within group	4.25	4.66	0.93	.63
Social poise	3.75	3.18	1.18	.26
Interacting with client	4.00	3.08	0.19	.83
Ability to direct colleagues	4.25	4.14	0.59	.57
Ability to take command without being domineering	4.25	3.86	0.49	.63
Portraying self so others will feel secure and not feel insecure	4.25	3.93	0.79	.55
Handling angry or dissatisfied customers, clients, patients, etc.	4.33	3.61	0.19	.89
Quickly establishing a good first impression	4.00	4.13	0.16	.84
Composite Group Mean	4.21	3.98		

CHAPTER VI

BUSINESS AND OFFICE

In view of the scope of the occupational categories within the business and office occupational segment, the researchers collected composite data for the total occupational area of business and office occupations. Two areas were analyzed on a separate basis due to their popularity; the two areas were: Business Data Processing and Secretarial Science. The first segment of this chapter analyzes composite data from the total business and office occupational spectrum.

Part I

Composite Segment of Business and Office Occupations

Category I: Personal Characteristic Category

Eight basic social skills were categorized into the personal characteristic category: creativity, job related independence, adaptability in job performance, intraception, dress as related to job performance, punctuality, control of temper, and completion of work schedule. The groups (Group I, the instructors within the business and office occupations within the training programs in the post secondary institutions, and Group II, the personnel within the business and

office occupations working within industrial or other job settings) rated the skills as to importance within the various occupational settings. As shown in Table LXXII, Group I (instructors) gave a composite mean rating of 4.30 as to the overall importance of the personal characteristic category of social skills. Group II (employed personnel) gave a mean rating of 4.47 as to the overall importance of the personal characteristic category of social skills.

The three social skills in the personal characteristic category that received the highest ratings on a five point scale of importance as given by Group I (instructors) were: control of temper (4.87), completion of work schedule (4.75), and punctuality (4.68). The three social skills in the personal characteristic category that received the highest ratings on a five point scale of importance as given by Group II (employed personnel) were: completion of work schedule (5.00), adaptability in job performance (4.93), and dress as related to job performance (4.86), as shown in Table LXXII.

A significant difference at the .01 level of significance existed between the ratings given by the two groups on three factors: creativity with the instructors giving the higher rating, job related independence with the employed personnel giving the higher rating, and adaptability in job performance with the employed personnel giving the higher rating. The

TABLE LXXII

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.18	2.80	3.77	.001**
Job related independence	3.87	4.71	2.67	.01**
Adaptability in job performance	4.06	4.92	3.14	.004**
Intraception	3.61	4.11	1.21	.24
Dress as related to job performance	4.38	4.86	1.49	.14
Punctuality	4.68	4.66	0.10	.93
Control of temper	4.87	4.73	0.82	.58
Completion of work schedule	4.75	5.00	1.68	.10
Composite Group Mean	4.30	4.47		

**Significant at or beyond .01 level of significance.

overall ratings on a composite basis within the personal characteristic category was not significant.

Category II: Social Skills in the Content Areas

Ten social skills were categorized in the content area of writing: writing letters, writing work orders, writing incident reports, writing trade articles, writing directions, writing specifications, writing bill of laiding, writing daily log, writing invoices, and writing job tickets. The groups (Group I, the instructors within the business and office occupations, and Group II, the personnel employed within the business and office occupational category) rated the ten skills in the content area of writing as to the importance of these skills with the occupational settings. As shown in Table LXXIII, Group I gave a composite mean rating of 3.85, on a five point scale, as to the overall importance of writing skills. Group II gave a composite mean rating of 2.67, on a five point scale, as to the overall importance of the various skills listed within the writing skill content area.

The three social skills within this content area that received the highest ratings by the instructors were: writing directions (4.43), writing letters (4.26), and writing invoices (4.28). The three social skills within this category that received the highest ratings as given by the employed personnel were: writing work orders (4.50), writing specifications (4.57), and writing directions (4.36).

TABLE LXXIII

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	4.26	4.07	0.47	.65
Work Order	3.15	4.50	2.68	.01**
Report of Incident	3.90	4.00	0.18	.85
Trade Article	3.15	3.00	0.21	.83
Written Directions	4.43	4.36	0.16	.87
Specifications	4.07	4.57	0.90	.62
Bill of Laiding	3.85	3.75	0.44	.67
Log (Daily)	3.93	4.33	0.83	.58
Invoice	4.28	4.00	0.49	.63
Job Tickets	4.00	4.28	0.39	.70
Composite Group Mean	3.85	4.08		

**Significant at or beyond .01 level of significance.

As indicated in Table LXXIII, there was a significant difference at the .01 level of significance between the ratings of the two groups on one skill, writing work orders, with the employed personnel giving the higher rating.

Seven social skills were identified within the content area of reading (ability to read): signs and labels, posted directions, reading memos and directions, work orders with detail, trade articles, analyzing technical material, and reading manuals and letters. As shown in Table LXXIV, the three reading skills that received the highest ratings in the content area of reading by Group I (instructors) were: memos and directions (4.81), manuals and letters (4.76), and posted directions (4.62). The three reading skills that received the highest ratings by Group II (employed personnel) were: memos and directions (4.93), posted directions (4.84), and reading signs and labels (4.81). There were no significant differences between the ratings of the two groups on any of the factors.

Ten basic social skills were identified in the content area of speaking: informal conversation with colleague, informal conversation with employer and colleague, informal conversation with employer, colleague, and client, formalized conversation with employer and client, telephone within organization, telephone with client and public, public relations presentation, informal training presentation, formal

TABLE LXXIV

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.62	4.81	0.81	.57
Posted Directions	4.62	4.84	0.91	.63
Memos and Directions	4.81	4.93	0.78	.55
Work Orders with detail	4.62	4.76	0.43	.68
Trade Article	4.33	3.80	0.93	.63
Analyze Technical Material	4.14	3.75	0.76	.54
Manuals and Letters	4.75	4.57	0.69	.53
Composite Group Mean	4.56	4.49		

training presentation, and presentation to client. As shown in Table LXXV, the three social skills in the content area of speaking that received the highest ratings as to importance by Group I were: formal conversation with employer and client (4.66), telephone with client and public (4.66), and telephone within organization (4.62). The three social skills in the content area of speaking that were given the highest ratings by Group II were: telephone with client and public (4.80), telephone within organization (4.76), and formal conversation with employer and client (4.53). As was noted, the two groups gave the highest ratings to the same three skills. There were no significant differences noted in the comparison of the ratings of the two groups on the social skills in the content area of speaking.

As shown in Table LXXVI, the social skills in the content area of arithmetic that received the highest ratings, as to importance, by Group I were: working with fractions (4.50), simple whole number computation (4.44), and number identification (4.43). The three skills within this area that received the highest ratings by Group II were: simple whole number computation (4.93), number identification (4.92), and exchanging money (4.72). A significant difference at the .03 level of significance existed between the ratings of the two groups on the skill of simple whole number computation (yet, this skill was in the top three of each of the groups as to

TABLE LXXV

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.43	4.20	0.79	.56
Informal conversation with employer and colleague	4.56	4.53	0.13	.89
Informal conversation with employer, colleague, and client	4.18	4.60	1.09	.28
Formalized conversation with employer and client	4.66	4.53	0.58	.57
Telephone conversation within organization	4.62	4.76	0.58	.57
Telephone conversation with client and public	4.66	4.80	0.62	.55
Public relations presentation	3.91	4.40	1.13	.27
Informal training presentation	3.50	3.83	0.89	.61
Formal training presentation	3.41	4.16	1.67	.11
Presentation to client	3.83	4.28	0.93	.64
Composite Group Mean	4.18	4.41		

TABLE LXXVI

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.43	4.92	2.58	.01**
Simple whole number computation	4.44	4.93	2.27	.03*
Working with fractions	4.50	4.00	1.28	.21
Exchanging money	4.33	4.72	1.10	.28
Ratios	3.81	2.80	1.49	.15
Weights and measurements	3.61	4.00	0.39	.70
Percentages	4.25	4.00	0.53	.58
Cost or product estimate	3.92	4.18	0.49	.63
Balancing ledger or accounts	4.53	5.00	1.83	.08
Composite Group Mean	4.20	4.28		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

importance) with the employed personnel giving the higher rating. A significant difference at the .01 level was recorded on the number identification factor with the employed personnel giving the higher rating.

Category III: Social Skills in Human Relations

Ten social skills were identified within the human relations segment. The skills were as follows: taking directions from colleague, taking directions from employer, interaction within the group, social poise, interaction with client, ability to direct colleagues, ability to take command without being domineering, portraying self so others will feel confident and not feel insecure, handling angry or dissatisfied customers, clients, patients, etc., and quickly establishing a good first impression.

The three social skills in the category of human relations that received the highest ratings by Group I as to importance were: taking directions from employer (4.87), taking directions from colleague (4.81), and quickly establishing a good first impression (4.63), as shown in Table LXXVII. The three social skills in the category of human relations that received the highest ratings by Group II were: taking directions from employer (4.86), handling angry or dissatisfied customers, clients, or patients (4.80), and interacting with clients (4.76). A significant difference at the .04 level of confidence was noted on the rating of the social skill taking

TABLE LXXVII

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS AND OFFICE OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS AND OFFICE PERSONNEL EMPLOYED WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.81	4.28	2.09	.04*
Taking directions from employer	4.87	4.86	0.05	.96
Interaction within group	4.50	4.21	0.96	.66
Social poise	4.56	4.26	1.08	.29
Interacting with client	4.56	4.76	0.82	.58
Ability to direct colleagues	4.50	4.23	0.99	.67
Ability to take command without being domineering	4.56	4.57	0.03	.97
Portraying self so others will feel secure and not feel insecure	4.56	4.60	0.15	.87
Handling angry or dissatisfied customers, clients, patients, etc.	4.31	4.80	1.38	.17
Quickly establishing a good first impression	4.62	4.40	0.77	.54
Composite Group Mean	4.59	4.50		

*Significant at or beyond .05 level of significance.

directions from colleague with the instructors giving the higher rating on this skill, as shown in Table LXXVII.

Part II

ANALYZATION OF SPECIFIC OCCUPATION CATEGORIES WITHIN THE BUSINESS AND OFFICE OCCUPATIONAL CATEGORY

Due to the popularity of various programs within the post secondary institutions, two programs within the business and office category were selected to be analyzed separately: Secretarial Science and Business Data Processing. Due to the amount of data, each segment was analyzed on a table basis with the following sequence of tables given to each analyzation: Social Skills in the Personal Characteristic Category, Social Skills in the Content Areas of Writing, Reading, Speaking, and Arithmetic, and Social Skills in the Human Relations Category.

PERSONAL CHARACTERISTIC CATEGORY
SECRETARIAL SCIENCE

TABLE LXXVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.18	2.80	3.33	.003**
Job related independence	4.00	4.71	2.86	.008**
Adaptability in job performance	4.45	4.92	2.37	.02*
Intraception	4.11	4.11	0.00	1.00
Dress as related to job performance	4.77	4.73	0.92	.84
Punctuality	4.90	4.66	0.90	.15
Control of temper	4.90	4.73	1.75	.61
Completion of work schedule	4.81	5.00	1.75	.08
Composite Group Mean	4.51	4.45		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

SOCIAL SKILLS IN THE CONTENT AREAS
SECRETARIAL SCIENCE

TABLE LXXIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	4.63	4.07	1.28	.21
Work Order	3.25	4.50	1.85	.08
Report of Incident	3.87	4.00	0.21	.82
Trade Article	3.10	3.00	0.12	.90
Written Directions	4.45	4.36	0.17	.86
Specifications	4.00	4.57	1.00	.33
Bill of Laiding	3.80	3.75	0.05	.95
Log (Daily)	4.40	4.33	0.14	.88
Invoice	4.60	4.00	1.23	.23
Job Tickets	4.55	4.28	0.38	.70
Composite Group Mean	4.06	4.08		

TABLE LXXX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.81	4.81	0.00	1.00
Posted Directions	4.72	4.84	0.43	.67
Memos and Directions	4.81	4.93	0.66	.51
Work Orders with detail	4.63	4.76	0.35	.72
Trade Article	4.54	3.80	1.24	.23
Analyze Technical Material	4.20	3.75	0.83	.57
Manuals and Letters	4.90	4.57	1.39	.17
Composite Group Mean	4.65	4.49		

TABLE LXXXI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.54	4.20	1.10	.28
Informal conversation with employer and colleague	4.54	4.53	0.04	.96
Informal conversation with employer, colleague, and client	4.72	4.60	0.65	.52
Formalized conversation with employer and client	4.72	4.53	0.76	.53
Telephone conversation within organization	4.63	4.76	0.46	.65
Telephone conversation with client and public	4.90	4.80	0.74	.52
Public relations presentation	4.33	4.40	0.14	.87
Informal training presentation	3.66	3.83	0.39	.70
Formal training presentation	3.55	4.16	1.19	.24
Presentation to client	4.00	4.28	0.59	.51
Composite Group Mean	4.36	4.40		

TABLE LXXXII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.45	4.92	2.26	.03*
Simple whole number computation	4.36	4.92	2.34	.02*
Working with fractions	4.50	4.00	1.16	.25
Exchanging money	4.54	4.72	0.58	.57
Ratios	3.90	2.80	1.65	.11
Weights and measurements	3.55	4.00	0.42	.68
Percentages	4.27	4.00	0.58	.57
Cost or product estimate	3.90	4.18	0.49	.64
Balancing ledger or accounts	4.36	5.00	2.24	.03*
Composite Grop Mean	4.20	4.28		

*Significant at or beyond .05 level of significance.

HUMAN RELATIONS CATEGORY
SECRETARIAL SCIENCE

TABLE LXXXIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF SECRETARIAL SCIENCE IN THE POST SECONDARY INSTITUTIONS AND SECRETARIES EMPLOYED IN THE OCCUPATIONAL CATEGORY OF SECRETARIAL SCIENCE ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.81	4.28	1.79	.08
Taking directions from employer	4.81	4.86	0.26	.79
Interaction within group	4.45	4.21	0.74	.52
Social poise	4.81	4.26	1.92	.06
Interacting with client	4.90	4.76	0.89	.61
Ability to direct colleagues	4.45	4.23	0.71	.50
Ability to take command without being domineering	4.81	4.57	1.30	.20
Portraying self so others will feel secure and not feel insecure	4.72	4.60	0.65	.52
Handling angry or dissatisfied customers, clients, patients, etc.	4.90	4.80	0.58	.57
Quickly establishing a good first impression	5.00	4.40	2.39	.02*
Composite Group Mean	4.77	4.50		

*Significant at or beyond .05 level of significance.

PERSONAL CHARACTERISTIC CATEGORY
BUSINESS DATA PROCESSING

TABLE LXXXIV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	4.16	3.37	1.24	.23
Job related independence	3.50	4.25	1.11	.29
Adaptability in job performance	3.83	4.62	1.17	.26
Intraception	3.33	2.50	1.45	.18
Dress as related to job performance	4.33	4.87	1.69	.11
Punctuality	4.33	4.62	0.62	.55
Control of temper	4.83	4.62	0.62	.55
Completion of work schedule	4.66	4.50	0.46	.65
Composite Group Mean	4.12	4.16		

SOCIAL SKILLS IN THE CONTENT AREAS
BUSINESS DATA PROCESSING

TABLE LXXXV

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.60	4.50	1.72	.11
Work Order	3.50	4.66	2.44	.03*
Report of Incident	4.40	3.57	1.08	.30
Trade Article	3.75	2.50	1.60	.18
Written Directions	4.50	4.66	0.35	.73
Specifications	4.66	3.75	0.87	.58
Bill of Laiding	3.50	4.24	1.11	.29
Log (Daily)	3.50	5.00	2.67	.02*
Invoice	3.80	3.00	0.65	.54
Job Tickets	3.33	3.50	0.12	.90
Composite Group Mean	3.85	3.94		

*Significant at or beyond .05 level of significance.

TABLE LXXXVI

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.00	4.87	2.59	.02*
Posted Directions	4.50	4.50	0.00	1.00
Memos and Directions	4.83	4.87	0.20	.83
Work Orders with detail	4.66	4.62	0.10	.91
Trade Article	4.25	3.50	0.76	.51
Analyze Technical Material	3.83	4.71	1.39	.18
Manuals and Letters	4.50	4.50	0.00	1.00
Composite Group Mean	4.37	4.51		

*Significant at or beyond .05 level of significance.

TABLE LXXXVII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	4.16	4.25	0.15	.87
Informal conversation with employer and colleague	4.50	4.12	0.68	.51
Informal conversation with employer, colleague, and client	3.16	4.71	2.16	.05*
Formalized conversation with employer and client	4.40	4.33	0.13	.89
Telephone conversation within organization	4.66	4.37	0.70	.50
Telephone conversation with client and public	4.20	4.28	0.16	.86
Public relations presentation	3.60	3.80	0.32	.75
Informal training presentation	3.40	3.87	0.79	.55
Formal training presentation	3.60	4.00	0.74	.51
Presentation to client	4.00	3.66	0.38	.71
Composite Group Mean	3.91	4.14		

*Significant at or beyond .05 level of significance.

TABLE LXXXVIII

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.66	4.74	0.24	.80
Simple whole number computation	4.83	4.87	0.20	.83
Working with fractions	4.66	4.83	0.45	.66
Exchanging money	3.75	3.83	0.08	.93
Ratios	4.16	4.16	0.00	1.00
Weights and measurements	4.16	3.83	0.46	.65
Percentages	4.50	4.28	0.35	.72
Cost or product estimate	4.33	3.50	1.28	.24
Balancing ledger or accounts	5.00	3.33	6.84	.000**
Composite Group Mean	4.45	4.15		

**Significant at or beyond .01 level of significance.

HUMAN RELATIONS CATEGORY
BUSINESS DATA PROCESSING

TABLE LXXXIX

A COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF BUSINESS DATA PROCESSING IN THE POST SECONDARY INSTITUTIONS AND THE BUSINESS DATA PROCESSING PERSONNEL EMPLOYED IN INDUSTRIAL SETTINGS AS TO THE IMPORTANCE OF SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.83	4.25	1.30	.21
Taking directions from employer	5.00	4.75	1.31	.21
Interaction within group	4.66	4.00	1.05	.32
Social poise	4.16	4.00	0.30	.76
Interacting with client	4.00	4.16	0.31	.76
Ability to direct colleagues	4.50	3.85	1.01	.33
Ability to take command without being domineering	4.33	4.25	0.18	.85
Portraying self so others will feel secure and not feel insecure	4.33	4.37	0.08	.93
Handling angry or dissatisfied customers, clients, patients, etc.	3.33	5.24	1.29	.22
Quickly establishing a good first impression	4.00	4.00	0.00	1.00
Composite Group Mean	4.31	4.19		

CHAPTER VII

TECHNICAL OCCUPATIONS

The data gathered in the technical occupational category were analyzed on a composite basis, encompassing the major areas within the technical occupational areas in the post secondary institutions utilized in the sample. Drafting and industrial electronics comprised the bulk of the technical occupations and training program sampled.

The social skills were grouped into the following categories: social skills in the personal characteristic category; social skills in the content areas, which included writing, reading, speaking, and math; and social skills in the human relations category. Each category is analyzed on a categorical basis.

Social Skills in the Personal Characteristic Category

The six social skills identified in the personal characteristic category were as follows: creativity, job related independence, adaptability in job performance, introception, dress as related to job performance, and three skills that were listed as factors of self discipline: punctuality, control of temper, and completion of work schedule.

The three social skills in the personal characteristic category that received the highest mean ratings by Group I (instructors) were: completion of work schedule (4.69), punctuality (4.65), and control of temper (4.47) on a five point scale. The four social skills within this category that received the highest ratings by Group II (employed personnel) were: dress as related to job performance (4.93), control of temper (4.62), punctuality (4.56), and completion of work schedule (4.56). There was no overall significant difference on the composite mean ratings of the skills within the personal characteristic category. A significant difference beyond the .01 level of confidence existed on the rating of one factor, dress as related to job performance, with the employed personnel giving the higher rating, as shown in Table XC.

Social Skills in the Content Area

Within the content area, four categories of skills were identified: skills in writing, skills in reading, skills in speaking or oral communications, and skills in math. Each skill was analyzed on a separate basis.

Ten skills were identified in the writing skill area: letter writing, work order writing, report of incident writing, trade article writing, written directions, specification writing, bill of laiding writing, log (daily) writing, invoice writing, and job ticket writing. The instructors and

TABLE XC

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE PERSONAL CHARACTERISTIC CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Creativity	3.82	3.93	0.27	.79
Job related independence	4.04	4.50	1.68	.10
Adaptability in job performance	4.30	4.56	1.25	.22
Intraception	3.77	3.23	1.52	.13
Dress as related to job performance	4.13	4.93	3.02	.005**
Punctuality	4.65	4.56	0.43	.67
Control of temper	4.47	4.62	0.62	.55
Completion of work schedule	4.69	4.56	0.69	.50
Composite Group Mean	4.23	4.36		

**Significant at or beyond .01 level of significance.

personnel employed within the technical occupational area were compared as to ratings on the writing factors as to importance, as shown in Table XCI.

The three writing skills that received the highest ratings by instructors were: writing specifications (4.43), writing directions (4.26), and writing work orders (3.95). Four skills received a maximum rating of 5.00 by the personnel employed within the technical occupational area: letter writing, work order writing, writing directions, and writing a daily log of task descriptions. There was a significant difference between the composite ratings of the two groups as to the importance of various writing skills in technical occupations.

Seven social skills were identified in the social skills content area of reading: being able to read signs and labels, posted directions, memos and directions, work orders with detail, trade articles, analyzing technical materials, and manuals and letters. The two groups, instructors and employed personnel, were compared on their ratings as to the importance of the reading skills in the technical occupational area. As shown in Table XCII, the four skills in reading that received the highest ratings by the instructors were: signs and labels (4.65), analyze technical material (4.63), memos and directions (4.52), and work orders with detail (4.52). The four reading

TABLE XCI

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE CONTENT AREA OF WRITING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Letter Writing	3.78	5.00	3.24	.003**
Work Order	3.95	5.00	4.49	.000**
Report of Incident	3.86	4.20	0.85	.59
Trade Article	3.08	4.77	3.85	.000**
Written Directions	4.26	5.00	2.51	.02*
Specifications	4.43	4.84	2.26	.03*
Bill of Laiding	3.26	4.70	3.20	.004**
Log (Daily)	3.63	5.00	4.54	.000**
Invoice	3.42	4.50	3.12	.005**
Job Tickets	3.64	4.40	1.92	.06
Composite Group Mean	3.73	4.74		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

TABLE XCII

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE CONTENT AREA OF READING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Signs and Labels	4.65	4.87	1.01	.32
Posted Directions	4.39	4.81	1.49	.19
Memos and Directions	4.52	5.00	2.41	.02*
Work Orders with detail	4.52	5.00	2.86	.007**
Trade Article	3.82	4.75	2.57	.01**
Analyze Technical Material	4.63	4.81	0.82	.57
Manuals and Letters	4.40	4.87	2.35	.02*
Composite Group Mean	4.42	4.87		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

skills that received the highest ratings by the personnel employed in the technical occupational area were: memos and directions (5.00), work orders with detail (5.00), signs and labels (4.87), and manuals and letters (4.87). The overall composite rating for the importance of the reading skills as given by the instructors was 4.42, and as given by the employed personnel was 4.87.

Oral communication was another segment of the social skills in the content area that was analyzed. Ten social skills were identified within the speaking or oral communications segment of the social skill content area: informal conversation with colleague, informal conversation with employer and colleague, informal conversation with employer, colleague, and client, formalized conversation with employer and client, telephone within organization, telephone with client and public, public relations presentation, informal training presentation, formal training presentation, and presentation to client.

As shown in Table XCIII, the three social skills in the speaking content area that received the highest ratings were: telephone with client and public (4.23), presentation to client (4.04), and informal conversation with employer, colleague, and client (4.04). The three social skills in the speaking or oral communication category that received the highest ratings by the personnel employed in the

TABLE XCIII

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE CONTENT AREA OF SPEAKING

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Informal conversation with colleague	3.95	4.13	0.54	.60
Informal conversation with employer and colleague	4.08	4.06	0.08	.93
Informal conversation with employer, colleague, and client	4.04	4.33	0.95	.65
Formalized conversation with employer and client	3.68	4.42	2.70	.01**
Telephone conversation within organization	4.09	4.80	2.85	.007**
Telephone conversation with client and public	4.23	4.71	2.23	.03*
Public relations presentation	3.47	4.53	3.46	.002**
Informal training presentation	3.65	4.28	2.05	.05*
Formal training presentation	3.65	4.27	1.73	.09
Presentation to client	4.04	4.46	1.24	.22
Composite Group Mean	3.81	4.40		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

technical occupational area were: telephone within the organization (4.80), telephone with client and public (4.71), and public relations presentation (4.53). The composite mean of the ratings of the skills as to importance within the technical occupational area as given the two groups were as follows: instructors, 3.81; employed personnel, 4.40.

As shown in Table XCIV, the social skills in the content area of arithmetic were analyzed in nine different categories: number identification, simple whole number computation, working with fractions, exchanging money, ratios, weights and measurements, percentages, cost or product estimates, and balancing ledger or accounts. The three social skills in the content area of arithmetic that received the highest ratings of importance by instructors were: number identification (4.78), simple whole number computation (4.78), and working with fractions (4.69). The three social skills in the content area of arithmetic that received the highest ratings of importance by the employed personnel were: number identification (5.00), simple whole number computation (5.00), and working with fractions (5.00). As noted above the three skills identified as being the most important by the instructors were also the same three skills that were identified as being most important by the employed personnel. The composite mean of the importance of the

TABLE XCIV

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE CONTENT AREA OF ARITHMETIC

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Number identification	4.78	5.00	2.05	.04*
Simple whole number computation	4.78	5.00	2.05	.04*
Working with fractions	4.69	4.00	2.07	.04*
Exchanging money	3.31	4.57	2.72	.01**
Ratios	4.65	4.73	0.33	.74
Weights and measurements	4.13	4.66	1.46	.15
Percentages	4.34	4.86	2.15	.04*
Cost or product estimate	4.38	4.77	1.38	.17
Balancing ledger or accounts	2.81	4.50	3.95	.001**
Composite Group Mean	4.21	4.79		

*Significant at or beyond .05 level of significance.
**Significant at or beyond .01 level of significance.

social skills in the math area as given by the instructors was 4.21; as given by employed personnel, the composite mean was 4.79.

Social Skills in the Human Relations Category

Ten skills were identified within the human relations category: taking directions from colleague, taking directions from employer, interaction within group, social poise, interacting with client, ability to direct colleagues, ability to take command without being domineering, portraying self so others will feel secure and not insecure, handling angry or dissatisfied customers, clients, patients, etc., and quickly establishing a good first impression, as shown in Table XCV.

The three basic human relation skills that received the highest ratings by the instructors as to importance were: taking directions from employer (4.81), taking directions from colleague (4.34), and quickly establishing a good first impression (4.34). The three human relation skills that received the highest ratings by the employed personnel in the technical occupational area were: taking directions from employer (4.87), taking directions from colleagues (4.56), and interacting with client (4.50). There was no significant difference in the overall ratings of the skills as to importance as given by the two groups, instructors and employed personnel.

TABLE XCV

A COMPOSITE COMPARISON OF THE RATINGS OF THE INSTRUCTORS OF TECHNICAL OCCUPATIONS IN THE POST SECONDARY INSTITUTIONS AND THE PERSONNEL EMPLOYED IN TECHNICAL OCCUPATIONS IN INDUSTRY ON SOCIAL SKILLS IN THE HUMAN RELATIONS CATEGORY

Social Skill	Group I Mean Rating (Instructors)	Group II Mean Rating (Personnel)	"t"	Probability
Taking directions from colleague	4.34	4.56	0.83	.59
Taking directions from employer	4.81	4.87	0.46	.65
Interaction within group	4.30	4.26	0.13	.89
Social poise	3.69	3.71	0.06	.95
Interacting with client	4.18	4.50	1.52	.13
Ability to direct colleagues	4.00	3.53	1.60	.11
Ability to take command without being domineering	4.08	3.87	0.68	.51
Portraying self so others will feel secure and not feel insecure	4.21	3.73	1.48	.14
Handling angry or dissatisfied customers, clients, or patients, etc.	3.78	3.66	0.29	.77
Quickly establishing a good first impression	4.34	4.00	1.16	.25
Composite Group Mean	4.17	4.07		

CHAPTER VIII

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

In view of the conclusive statements drawn from this study, the reader should remember that the data herein is considered surface data and by no means ascertains that a comprehensive, factual conclusive analysis of all facts pertinent to the various areas within this study have been comprehensively analyzed. The conclusions and recommendations are in the following order within the chapter:

Section I. General Conclusions, Implications, and Recommendations.

Section II. Trade and Industrial - General Conclusions, Implications, and Recommendations.

- A. Auto Mechanics Conclusions, Implications, and Recommendations.
- B. Welding Conclusions, Implications, and Recommendations.
- C. Industrial Electricity Conclusions, Implications, and Recommendations.
- D. Heating, Air Conditioning, and Refrigeration Conclusions, Implications, and Recommendations.
- E. Building Trades Conclusions, Implications, and Recommendations.
- F. Machine Shop Conclusions, Implications, and Recommendations.

Section III. Technical Occupations - General Conclusions, Implications, and Recommendations.

Section IV. Business and Office - General Conclusions, Implications, and Recommendations.

Section V. Marketing and Distribution - General Conclusions, Implications, and Recommendations.

Section VI. Health Occupations - General Conclusions, Implications, and Recommendations.

Section I

General Conclusions, Implications, and Recommendations

Conclusions:

1. Skills, other than task performance skills, within each occupational area are considered social skills; such social skills can be categorized by employers and employees within the industrial setting and by instructors within the post secondary vocational complexes.
2. Various degrees of social skill competence are of vital importance to the levels of performance within all basic occupational categories.
3. Instructors, employers, and employees have a degree difference of opinion as to the importance of various social skills in relation as to how these skills relate to job performance.
4. A strong consensus among all employees, employers, and instructors in all occupational areas is that the employable person is an individual that possesses a strong degree of self-discipline which includes punctuality, control of temper, and full completion of the work schedule.
5. Employers and instructors within the occupational areas agree unanimously that individuals must be able to take directions from the employer.

6. Human relation skills are a pertinent part of satisfactory job performance.
7. Oral communication elements decrease in importance as related to job performance when individuals go into occupations that require manipulative skills.

Implications:

1. Students are often involved in segments of related courses and content area courses that have no direct relationship to the skill for which they are training.
2. In general, there is a fairly narrow margin of difference in the ratings of social skills by instructors and industrial personnel on a composite basis.
3. Some instructors within occupational areas have utilized craft committees in an advantageous manner.

Recommendations:

1. Courses taught in conjunction with the various occupational training areas should be reviewed carefully by a committee of craftsmen and teachers to specify specific areas of pertinent concern within each of the content areas.
2. A closer alignment of teachers and craftsmen within the various occupational areas would be advantageous
3. Basic human relation skills should be an integrate segment of occupational training programs.

Section II

Trade and Industrial
Conclusions, Implications, and Recommendations

Conclusions:

1. There was a significant difference at or beyond .01 level of significance between the ratings of various social skills within the personal characteristic category of the trade and industrial instructors and the ratings of trade and industrial personnel employed in the trade and industrial occupations. However, the three social skills within this category that were given the highest ratings by Group I were also given the highest ratings by Group II. The skills were as follows: puncuality, control of temper, and completion of work schedule.
2. The instructors in trade and industrial programs gave writing skills a significantly higher rating of importance than did the personnel employed in industry. However, writing job tickets ranked second as to importance within both groups.
3. The two speaking skills that were rated highest by trade and industrial instructors and employed trade and industrial personnel were informal conversation with employer and colleague and informal conversation with employer, colleague, and client.

4. Speaking as a social skill was rated significantly higher as a social skill by instructors than by employed trade and industrial personnel.
5. Two levels of math as a content area social skill were given one and two ranks by both groups: number identification ranked number one in both groups and simple whole number computation was ranked number two by both groups.
6. The instructors view human relation skills as being more important than do the personnel who are employed in trade and industrial occupations.
7. The personal characteristic identified as the ability of a person to be punctual was the single most sought after personal characteristic by instructors and employed personnel.
8. The large degree of significance that existed between the composite ratings of the two groups on all categories is due to the diversity of occupations within the trade and industrial occupational category.

Implications:

1. People who are in the labor force of trade and industrial occupations only view various segments of content area skills as being important. These skills in speech, reading, arithmetic, and writing should be considered on an isolated basis .

2. A person who possesses the factors of self-discipline: punctuality, control of temper, and ability to complete a work schedule, is the most sought after person in trade and industrial occupations.

Recommendations:

1. Craft committees should work closely with instructors in assisting the instructors in selecting segmental components within the content area that are applicable to specific occupations. Proficiency within the content areas of reading, math, speaking, and writing should be related basically to the segment of proficiency needed by the student to work within his chosen occupational area.

Auto Mechanics

Conclusions:

1. There is general agreement as to the importance of specific social skills in the personal characteristic category by both groups, instructors and employed personnel; each group gave very high ratings in the personal characteristic category.
2. Auto mechanics and instructors of auto mechanics gave priorities in writing to (being able to write) specifications, work orders, bill of laiding, and job tickets and invoices.
3. Both groups, auto mechanics and instructors of auto mechanics, gave reading as a social skill a very high rating. The most important tasks in reading that were identified were the ability to read the following: posted directions, work orders with detail, and manuals and letters.
4. Both groups, instructors and employed personnel, identified number identification as being of maximum importance and gave high ratings to simple whole number computation and balancing ledgers and accounts.
5. Human relations were identified by both groups as being an important element within the auto mechanics area. This social factor received a very high rating with emphasis being placed on the following:

taking directions from the employer, quickly establishing a good first impression, and handling angry or dissatisfied customers.

Implications:

1. The individual who is employed in auto mechanics has a high degree of interrelation with customers. The auto mechanic is often the individual who must meet customer demand and, in turn, appease the customer.
2. Students should spend more time on segments of content courses that relate directly to their performance within the occupational area.

Recommendations:

1. Auto mechanics students should be allowed to carry out the basic writing skills in the school laboratory that are required by employers: specifications for particular parts' request from the part's manager and other specification writings, bill of laiding, job tickets, and invoices.
2. The math skills dwelt upon during the theory phase or basic education phase of the students' training programs should be expertise in whole number computation as related to job tickets with price affixation, etc.

3. Reading should be stressed in the area of basic reading skills with emphasis on manuals (part's manuals, etc.) and work orders.
4. Students need to develop a greater depth of human relation social skills.

Welding

Conclusions:

1. The instructors within the welding program rated the importance of personal characteristics higher than did the welders working in industry and self-employed welders.
2. The instructors rated the personal characteristic of punctuality highest in relationship to the other personal characteristic factors, and the welders working in industry and independently rated the factor of punctuality highest.
3. Dress as related to job performance was rated extremely high because of the factors related to safety and protection.
4. Number identification and simple whole number computation seem to be the two most important factions within the performance of a job task within the welding occupation. There was a significant difference in the rating of working with fractions as being related to job performance. The instructors rated this task significantly higher than did the personnel employed within industry.
5. The instructors rated personal human relations as being significantly more important than did the welding personnel employed within industry. The

most important aspect of human relations as given by the employed personnel was that of being able to handle angry or dissatisfied customers.

6. The instructors rated writing, as related to job performance, significantly higher that did the personnel employed within welding occupations. The employed personnel rated the skill of being able to write job tickets higher than the other factors, while the instructors rated the skill of writing job tickets, specifications, and bill of laidings on a comparable level of significance.
7. The welders employed in industry rated the importance of reading significantly more important than did the instructors. The employed industrial personnel gave extremely high ratings to being able to pay attention and to read sign and labels and posted directions.
8. Speaking was rated by both groups, instructors and employed personnel, as being below average in importance in relationship to job performance.

Implications:

1. The ability to speak with colleague and employer is probably the only important aspect of oral communication within this occupation.

2. Whether one is working independently or for industry, punctuality is still a must factor in being successful in welding.

Recommendations:

1. The welder should be made very much aware of the signs that surround his working environment and pay close attention to signs and labels on tools and materials.
2. Safety factors involving equipment, materials, and environmental factors are a mandatory introduction into the welding training program.

Industrial Electricity

Conclusions:

1. The instructors and employed industrial personnel in industrial electricity rated the skills within the personal characteristic category as above average in relationship to job performance.
2. There was a substantial agreement among the instructors and employed personnel as to the various elements of importance within the area of personal characteristics. Punctuality received maximum ratings by both groups.
3. The instructors rated the writing skills as being more important than did the employers and employees within the industrial electricity occupations.
4. The type of writing skills that received the highest rating by the instructors was work orders, and the employees within the industrial electricity occupations rated the work orders as lowest. There is a significant difference between the ratings of the two groups in writing skills as to the importance of the skills in job performance.
5. The instructors rated the content skills of reading as being more important in job performance than did the personnel employed within the industrial electricity occupations.

6. There was a significant difference between the ratings of the two groups as to the importance of the content social skill of speaking as related to job performance, with the instructors giving the highest rating.
7. There is a significant difference between the ratings of the two groups as to the importance of math skills as related to job performance, with the instructors giving the highest ratings. The skill that received the highest rating as given by the instructors was working with fractions, while the skill that received the highest rating of importance as given by the employed personnel within the industrial electricity occupations was number identification and meaning.
8. The most important human relations skill as given by both groups was taking directions from employer. There was no overall significant difference in the ratings of the two groups on the human relations category.

Implications:

1. More emphasis needs to be placed on the development of social skills as related to personal characteristics.

2. General writing skills should become more oriented to skills pertinently related to job performance.

Recommendations:

1. The development of human relations and the development of employable personal characteristics should be reviewed.
2. Basic related courses that are related to job performance should have isolated segments related to job performance identified and more time spent on these segments.

Heating, Air Conditioning, and Refrigeration

Conclusions:

1. Punctuality is the most important factor within the personal characteristic category as given by both instructors of heating, air conditioning, and refrigeration and employees within the occupational area.
2. One of the basic and most important elements in the human relations category is that of establishing a good first impression.
3. In general, the two groups, employed personnel within the heating, air conditioning, and refrigeration occupational category and the instructors, were closely aligned in the agreement of all social skills. The margin of difference in this area was remarkably small.

Implications:

1. The instructors and the personnel employed in the heating, air conditioning, and refrigeration occupations are closely aligned as to the social skills needed for job performance.

Building Trades

Conclusions:

1. The instructors rated the social skills in the personal characteristic category as being significantly more important than did the personnel employed within the occupational area.
2. The instructors rated the social skills in the content area of writing consistently higher as to importance than did the personnel employed within the occupational area.
3. There was no significant difference in the ratings of the two groups on the importance of reading in relationship to job performance.
4. The speaking skills category received below average ratings as to importance in job performance by both groups, instructors and employees within the occupational area.
5. Human relation skills received low ratings as to importance by both groups.

Implications:

1. The implications are that basic social skills are of lesser value in this basic trade area than in any of the other trade areas included in the study.

Recommendations:

1. If and when basic courses are taught in conjunction with building trades, serious thought should be given to the importance of the content factors, keeping in mind that the basic skills within the trade seem to supersede the social skills.

Machine Shop

Conclusions:

1. The machine shop instructors and the machinists in industry place a high rating on the social skills related to personal characteristics.
2. The machine shop instructors and the machinists in industry rate punctuality and completion of work schedule as the most important social skills in the personal characteristic category.
3. The machine shop instructors and the machinists in industry placed the greatest importance in the writing category on the ability to write specifications, and the second highest rating on work orders.
4. The machine shop instructors and the machinists rated the ability to read and analyze technical materials as being the most important segment of reading skills.
5. The ability to speak and oral communication was rated as being above average in the area of importance by both machinists and machine shop instructors.
6. The ability to work with fractions received a maximum rating by both the machinists and the machine shop instructors.

7. In the human relations category of social skills the machine shop instructors rated the skill of taking directions from the employer as the maximum social skill, and the machinists rated the social skill of interaction within the group as the most important human relation social skill.

Implications:

1. Social skills in the personal characteristic category are important in the machinist trade. The implication for such a high rating may be because of the shift work factor and also because of private or small business customer contact.

Recommendations:

1. A sincere look should be taken at the various social skills within the personal characteristic category with some consideration given to the development of these skills within the occupational area.

Section III

Technical Occupations
Conclusions, Implications, and Recommendations

Conclusions:

1. Technical occupations tend to require a high level of social skills within the personal characteristic category.
2. There was a significant difference on the ratings of the two groups as to the importance of writing skills, with the technical personnel in industry feeling that writing as related to job performance was more important than did the instructors within the technical occupations.
3. The technical personnel employed within industry rated the importance of reading skills significantly higher than did the instructors of technical occupations.
4. The technical personnel employed in industry rated the importance of oral communication skills significantly higher than did the instructors.
5. The technical personnel rated the importance of the various social skills in the math content area as being significantly more important than did the instructors.
6. No significant differences existed in the ratings of the two groups on the human relations skills.

Implications:

1. Closer alignment of needs within the content areas and social skills categories needs to be developed in accordance with the demands of industry.
2. Strong craft committees need to be organized within the technical areas to lend assistance in planning and developing materials and some basic course content.

Recommendations:

1. There tends to be a significant need for the technical occupational instructors to seek more input from people employed within the various technical occupations to determine some basic curriculum needs.

Section IV

Business and Office Occupations - Composite Conclusions, Implications, and Recommendations

Conclusions:

1. It was concluded that social skills within the personal characteristic category are pertinent.
2. Employability as related to the social skills within the personal characteristic category depends upon many of the personal characteristic social skills.
3. There was no significant difference in the rating of the content social skill of writing by the two groups as to importance of the skill in job performance.
4. Reading and social skills in human relations received the highest ratings as to importance in relationship to job performance.
5. There was no significant differences in the ratings of the human relation skills by the two groups.

Implications:

1. The personnel employed within the business and office occupational area and the instructors of business courses within the post secondary vocational complexes are closely aligned as to the importance of social skills in relationship to job performance.

Recommendations:

1. Business and office instructors should continue to work on social skills in the human relations and personal characteristic categories.

Section V

Marketing and Distribution
Conclusions, Implications, and Recommendations

Conclusions:

1. The personnel who were employed within the marketing and distribution occupation sense a significantly greater need for students to be prepared to adapt and adjust than do the educators who are training the students for employment in marketing and distribution occupations.
2. The personnel who were employed within the marketing and distribution occupation sense a significantly greater need for students, who are future employees, to be aware of self-discipline as it relates to the completion of a work schedule.
3. The personnel who were employed within the marketing and distribution rate writing skills significantly higher than do the educators who are training the students, with greatest emphasis being placed on the following writing skills: work orders, report of incident, specifications, and job tickets.
4. The personnel who were employed within the marketing and distribution occupation placed a significantly higher rating on the ability to read than did the educators.

5. A better understanding of the purpose of the analytical reading technical material needs to be gained between the two groups. There is a significant difference at the .01 level in the rating of importance of being able to read this type of material, with employed marketing and distribution personnel giving the higher ratings.
6. There is a sentiment of real agreement between educators and employed personnel in the marketing and distribution occupation that speaking skills in all forms are highly important. The communication skill level must be above average.

Implications:

1. Students need to be more oriented to the fact that flexibility could well be the keynote to success within this occupational area.
2. Students need to be guided with greater force into becoming aware of self-discipline as it relates to employment and success, especially in completing a self-imposed work schedule.
3. Students need to be made more aware of descriptive types of writings needed within the marketing and distribution occupational area, and all types of writing listed on the SSIS sheet should be made known to marketing and distribution students.

4. Students need to spend more time in learning to analyze technical materials pertinent to the occupational area.
5. Speaking skills are the most highly demanded skills in the marketing and distribution occupational category.
6. Students within the marketing and distribution programs should possess mathmatical skills up to the level of ratio computation and balancing ledgers and accounts.
7. Three elements of major significance exist in the human relation social skill category: be able to (a) take directions from colleague and employer, (b) maintain social poise, and (c) establish a good first impression.

Recommendations:

1. Instructors within the marketing and distribution occupational category should strive to develop a higher level of social skill competence in the personal characteristic category.
2. Instructors should review the basic writing needs of the marketing and distribution skills.

Section VI

Health Occupations - Composite
Conclusions, Implications, and Recommendations

Conclusions:

1. Social skills in the personal characteristic category are pertinent to the performance of job tasks in the health occupations category; punctuality and control of temper carry the highest ratings of importance in relationship to job performance.
2. Instructors tend to rate the necessity of certain writing skills higher than the employed personnel rate the skills.
3. There is a close alignment of the ratings of the instructors and personnel employed in health occupations in the ratings of the importance of reading skills.
4. Human relations in a pertinent part of social skills that must be possessed by the individual employed within the health occupations work category.

Implications:

1. In general there is a narrow margin of difference in the overall ratings of the importance of various social skills by the two groups, instructors and personnel employed within the health occupation area.

Recommendations:

1. Health occupations students should have segments of course work in which the techniques of oral presentation to patients concerning various problems within each situation are discussed, and methods and techniques given.
2. Human relation skills should be reviewed closely by each instructor and such skills should become a basic segment of the training program.

APPENDICES

APPENDIX A

The following questionnaire is part of a study for the State Department of Education, Division of Vocational-Technical Education, which attempts to identify social skills that are relevant to specific occupational areas. The data for this study will be gathered from instructors in vocational and technical areas within selected post-secondary institutions and from selected vocational personnel who are representative of the occupational areas within the post-secondary institutions. Results of the study will be reported to the State Department of Education, Division of Vocational-Technical Education, and will be used by educational institutions in Mississippi in identifying social skills that need to be strengthened within each occupational area. It is felt that a better insight into the social skills that are of importance to industry may be gained from the study, and, as a result, students may be better trained to meet the needs of the "working world".

The left column is the list of social skills to be rated. Each entry is to be responeded to in the right column by a circle. The number 5 represents the highest value and importance that may be assigned, while the number 1 represents the lowest. N/A means that the particular social skill is not applicable (of no concern) to your own occupational area. It is important that <u>each</u> and <u>every</u> entry (each row of numbers) have one, and only one, circle.

Social Skills Inventory Scale

Institution or Industry _____

Occupational Category _____
Occupational Skill _____

Please indicate the value of each social skill which pertains to the specific occupational skill by circling the number of each skill. The number 5 indicates the highest value, and the number 1 indicates the lowest value.

Social Skills		Rating					
Category I.	Personal Characteristics Category						
1.	Creativity	5	4	3	2	1	N/A
2.	Job related independence	5	4	3	2	1	N/A
3.	Adaptability in job performance	5	4	3	2	1	N/A
4.	Intraception	5	4	3	2	1	N/A
5.	Dress as related to job performance						
	uniform or coat and tie	5	4	3	2	1	N/A
	dress clothes no tie	5	4	3	2	1	N/A
	shirt and tie	5	4	3	2	1	N/A
	dress choice of employee	5	4	3	2	1	N/A
6.	Self discipline						
	punctuality	5	4	3	2	1	N/A
	control of temper	5	4	3	2	1	N/A
	completion of work schedule	5	4	3	2	1	N/A
Category II.	Social Skills in Content Areas						
1.	Writing (must be able to)						
a.	letter	5	4	3	2	1	N/A
b.	work order	5	4	3	2	1	N/A
c.	report of incident	5	4	3	2	1	N/A
d.	trade article	5	4	3	2	1	N/A
e.	written directions	5	4	3	2	1	N/A
f.	specifications	5	4	3	2	1	N/A
g.	bill of laiding	5	4	3	2	1	N/A
h.	log (daily)	5	4	3	2	1	N/A
i.	invoice	5	4	3	2	1	N/A
j.	job tickets	5	4	3	2	1	N/A

2.	Reading Skills (must be able to)						
	a. Signs, labels	5	4	3	2	1	N/A
	b. Posted directions	5	4	3	2	1	N/A
	c. Memos and directions	5	4	3	2	1	N/A
	d. Work orders with detail	5	4	3	2	1	N/A
	e. Trade articles	5	4	3	2	1	N/A
	f. Analysis of technical material	5	4	3	2	1	N/A
	g. Manuals and letters	5	4	3	2	1	N/A
3.	Speaking Skills						
	a. Informal conversation with colleague	5	4	3	2	1	N/A
	b. Informal conversation with colleague and employer	5	4	3	2	1	N/A
	c. Informal conversation with colleague, employer, and client	5	4	3	2	1	N/A
	d. Formalized conversation with employer and client	5	4	3	2	1	N/A
	e. Telephone within organization	5	4	3	2	1	N/A
	f. Telephone with client and public	5	4	3	2	1	N/A
	g. Public relations presentation	5	4	3	2	1	N/A
	h. Informal training presentation	5	4	3	2	1	N/A
	i. Formal training presentation	5	4	3	2	1	N/A
	j. Presentation to client	5	4	3	2	1	N/A
4.	Mathematical Skills						
	a. Number identification	5	4	3	2	1	N/A
	b. Simple whole number computation	5	4	3	2	1	N/A
	c. Working with fractions	5	4	3	2	1	N/A
	d. Exchanging money (making change)	5	4	3	2	1	N/A
	e. Ratios	5	4	3	2	1	N/A
	f. Weights & measurements	5	4	3	2	1	N/A
	g. Percentages	5	4	3	2	1	N/A
	h. Cost or product estimate	5	4	3	2	1	N/A
	i. Balancing ledger or accounts	5	4	3	2	1	N/A
Category III.	Social Skills in Human Relations						
1.	Taking directions from colleague	5	4	3	2	1	N/A
2.	Taking directions from employer	5	4	3	2	1	N/A

3.	Interaction within group	5	4	3	2	1	N/A
4.	Social poise	5	4	3	2	1	N/A
5.	Interacting with clients	5	4	3	2	1	N/A
6.	Ability to direct other employees (colleagues)	5	4	3	2	1	N/A
7.	Ability to take command of a situation without being overbearing or dominant with the other party	5	4	3	2	1	N/A
8.	Portraying self so others will feel confident and not insecure	5	4	3	2	1	N/A
9.	Handling angry or dissatisfied customers, clients, or patients, etc.	5	4	3	2	1	N/A
10.	Quickly establishing a good first impression	5	4	3	2	1	N/A

APPENDIX B

POPULATIONS OF STUDY

Trade and Industrial - Composite
- Instructors - N = 53
- Industrial Personnel - N = 68

  Welding
  - Instructors - N = 4
  - Industrial Personnel - N = 11

  Industrial Electricity
  - Instructors - N = 4
  - Industrial Personnel - N = 16

  Heating, Air Conditioning, and Refrigeration
  - Instructors - N = 4
  - Industrial Personnel - N = 8

  Auto Mechanics
  - Instructors - N = 10
  - Industrial Personnel - N = 9

  Building Trades
  - Instructors - N = 4
  - Industrial Personnel - N = 11

  Machine Shop
  - Instructors - N = 5
  - Industrial Personnel - N = 8

Marketing and Distribution - Composite
- Instructors - N = 7
- Industrial Personnel - N = 36

Health Occupations - Composite
- Instructors - N = 10
- Industrial Personnel - N = 35

  Practical Nursing
  - Instructors - N = 6
  - Industrial Personnel - N = 25

Technical Occupations - Composite
- Instructors - N = 23
- Industrial Personnel - N = 36

Business and Office Occupations - Composite
Instructors - N = 17
Industrial Personnel - N = 24

Data Processing
Instructors - N = 6
Industrial Personnel - N = 8

Secretarial Science
Instructors - N = 11
Industrial Personnel - N = 15